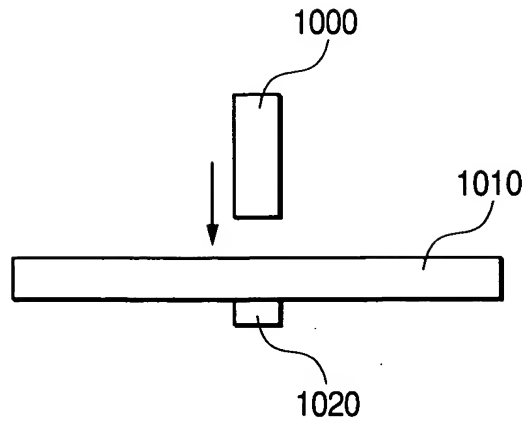
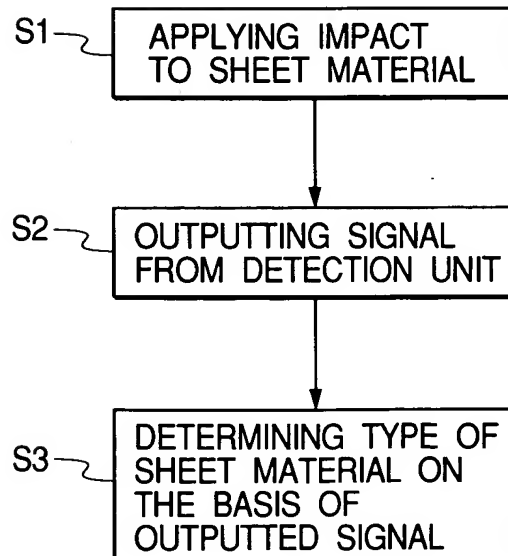
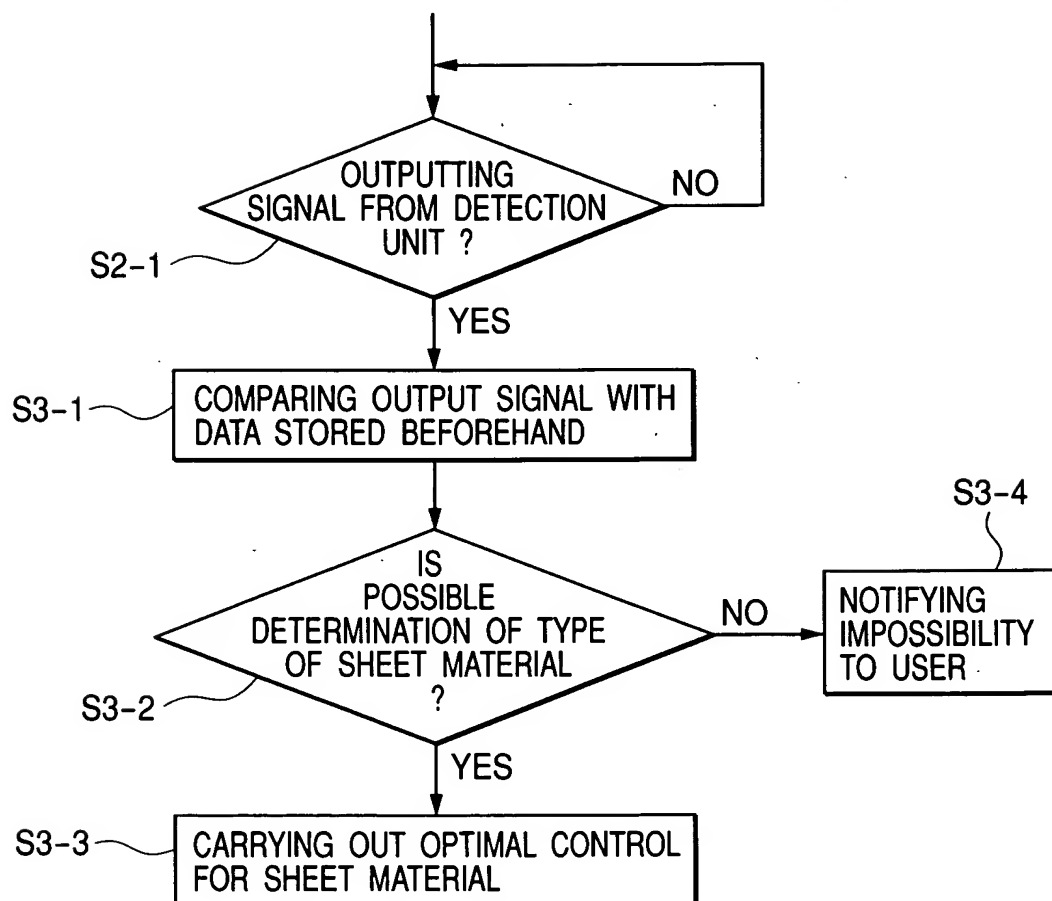


**FIG. 1**

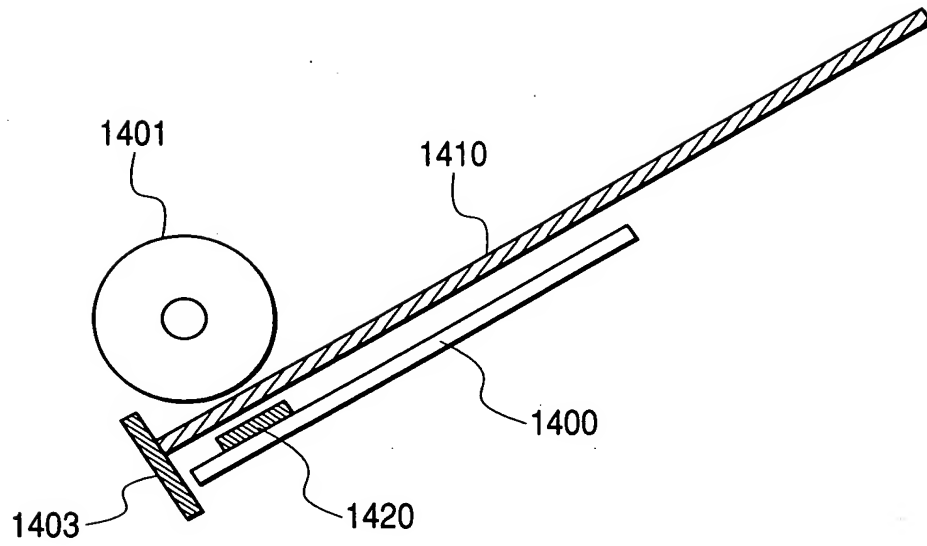


**FIG. 2**

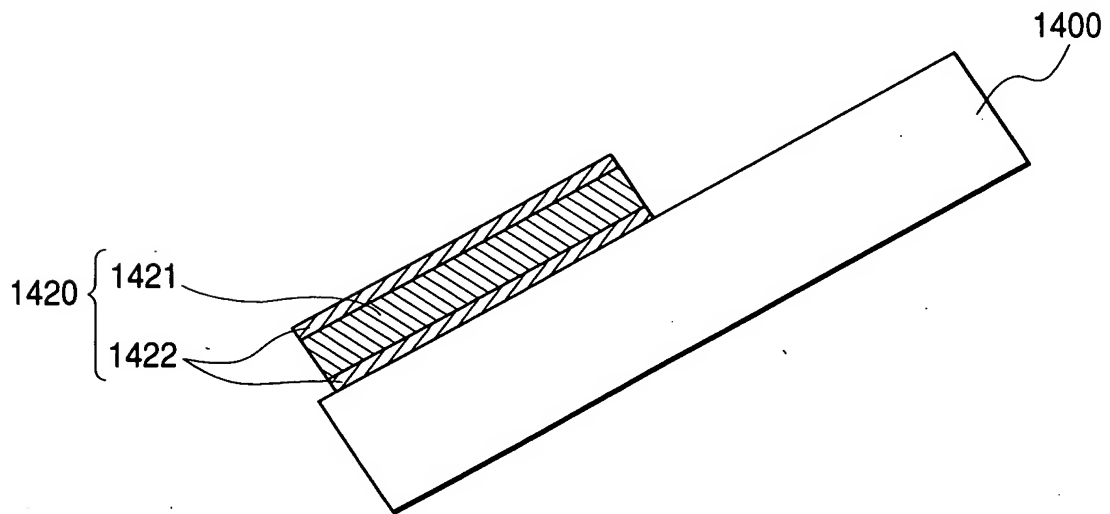


**FIG. 3**

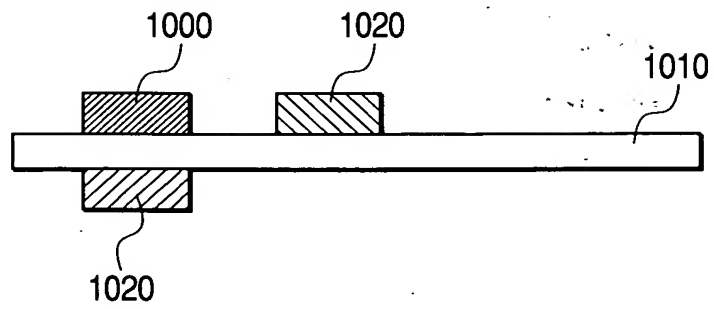
**FIG. 4**



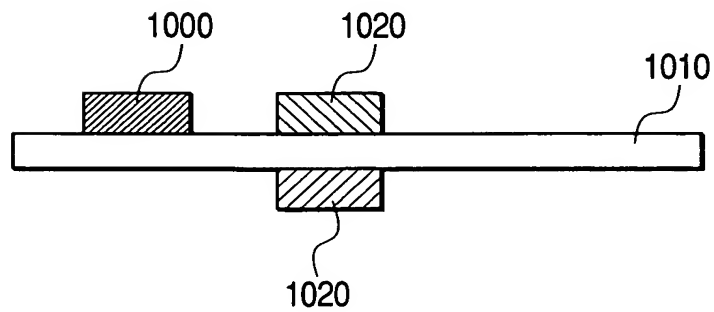
**FIG. 5**



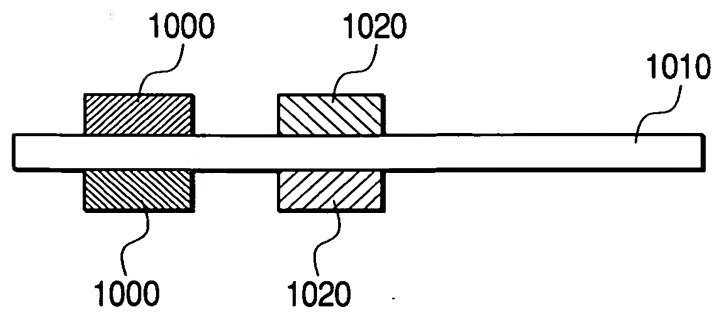
**FIG. 6A**



**FIG. 6B**



**FIG. 6C**



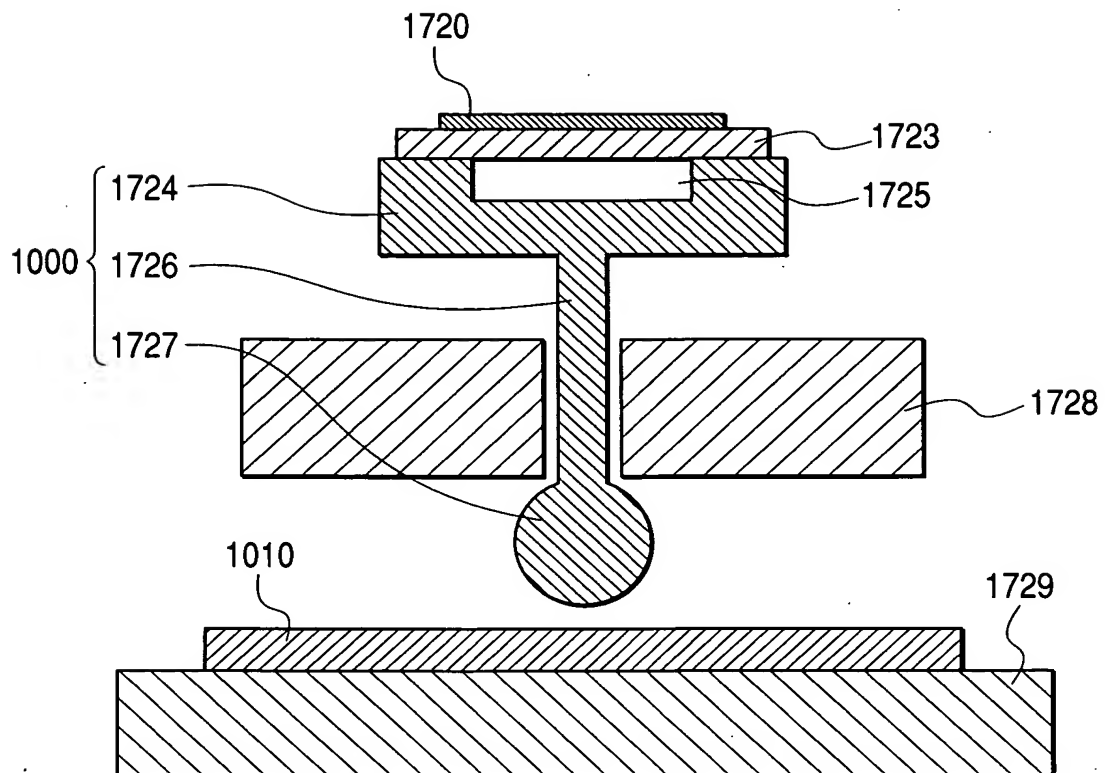
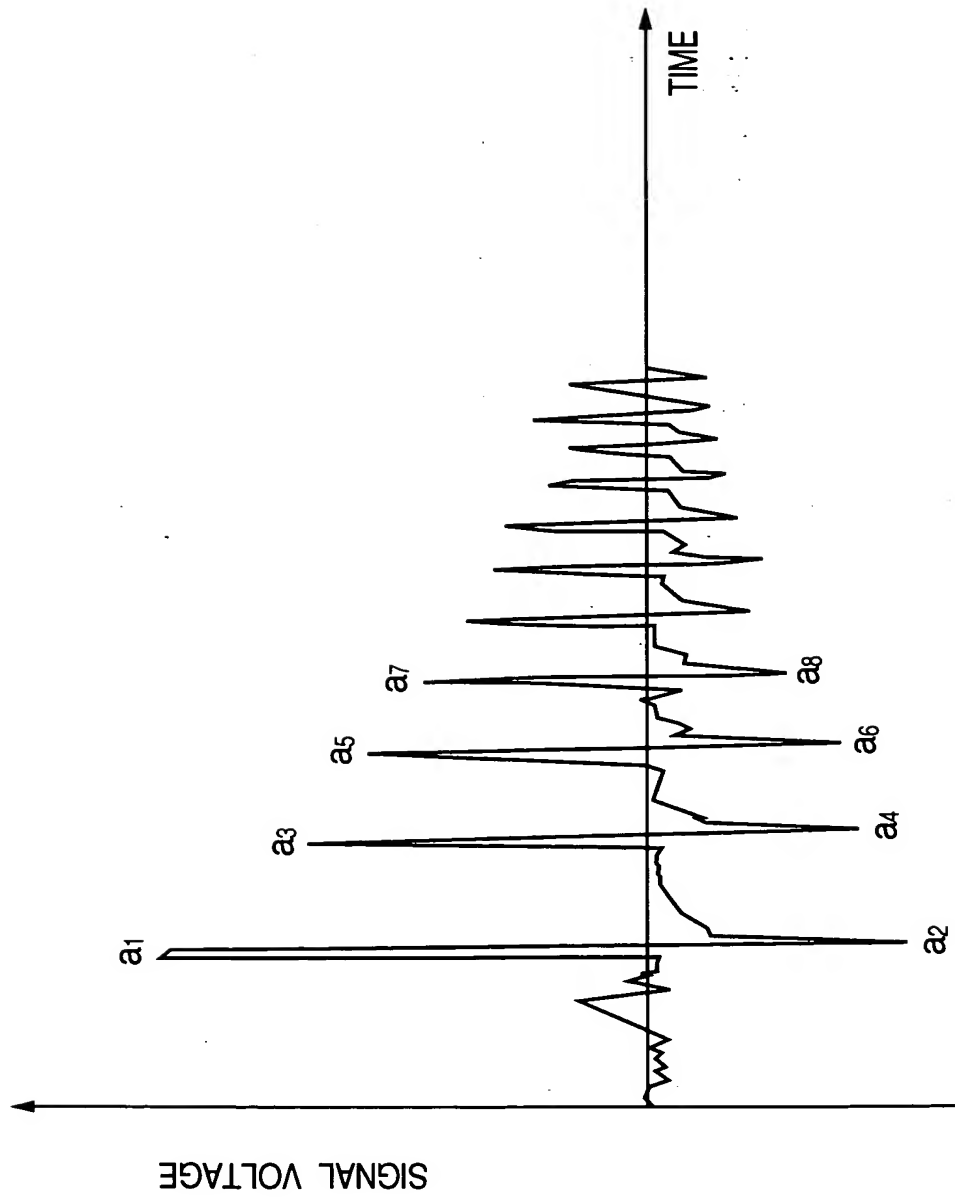
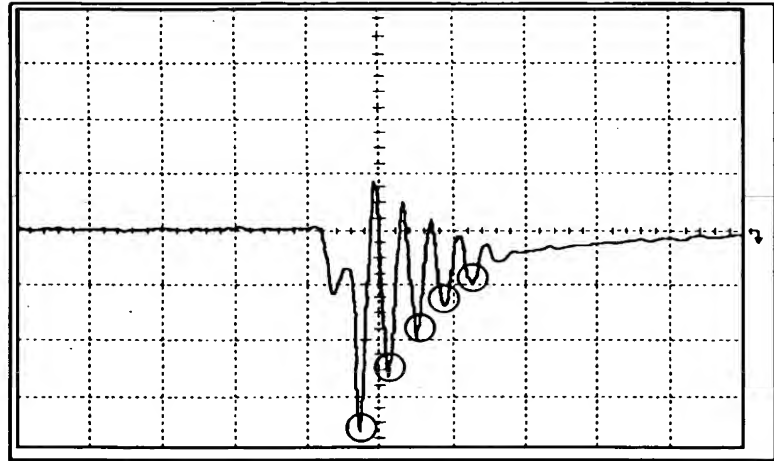
**FIG. 7**

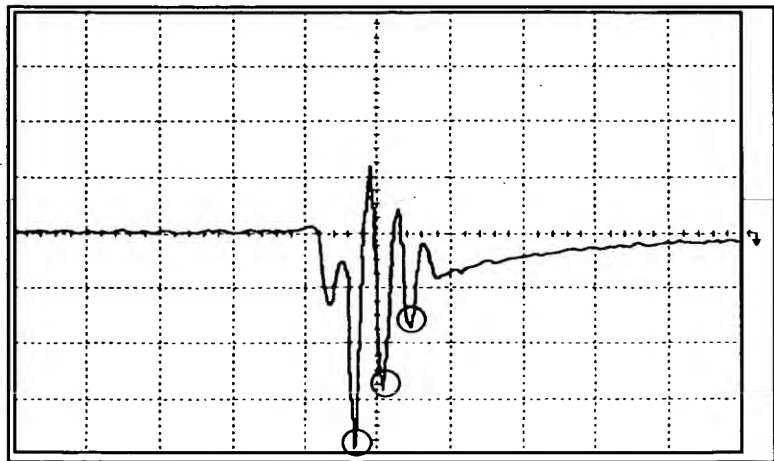
FIG. 8



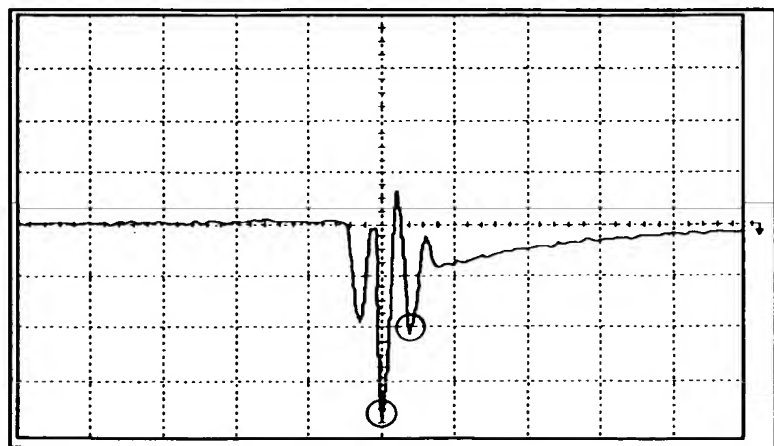
**FIG. 9**



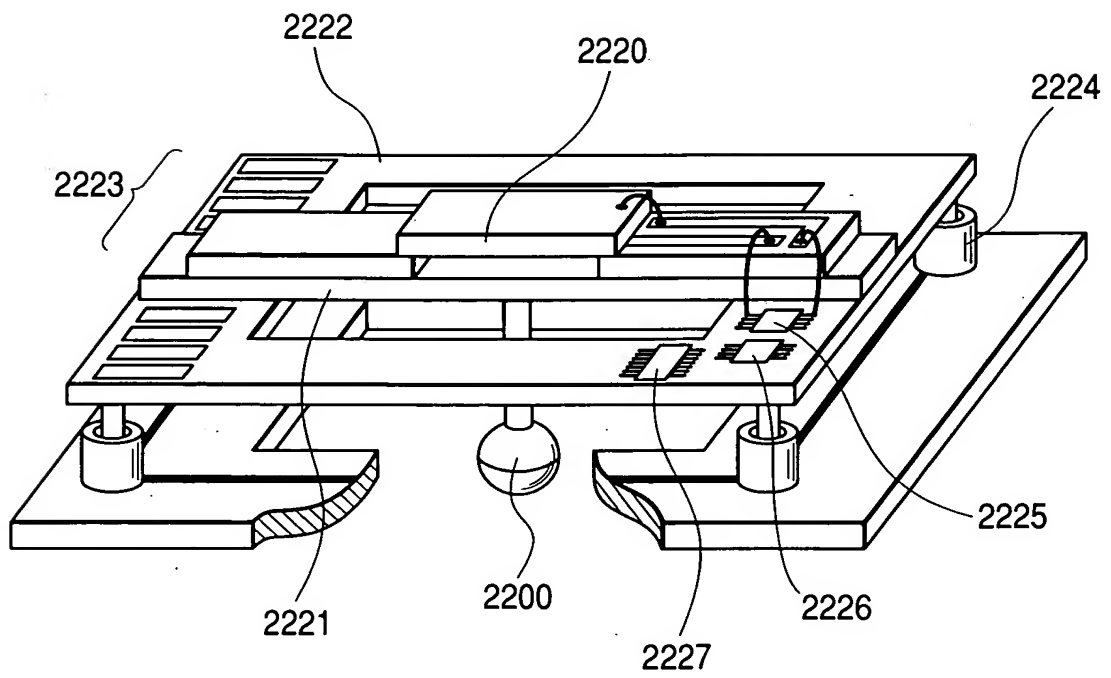
**FIG. 10**



**FIG. 11**

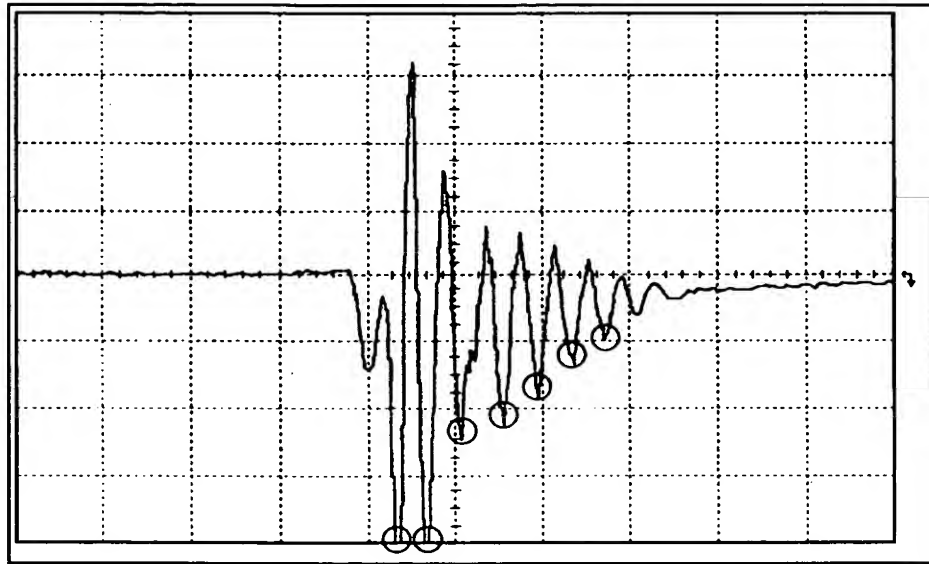


**FIG. 12**





**FIG. 13**



**FIG. 14**

MAKING IMPACT APPLYING UNIT  
COLLIDE WITH SHEET MATERIAL

14-1

MEASURING RECOIL PERIOD OF  
IMPACT APPLYING UNIT

14-2

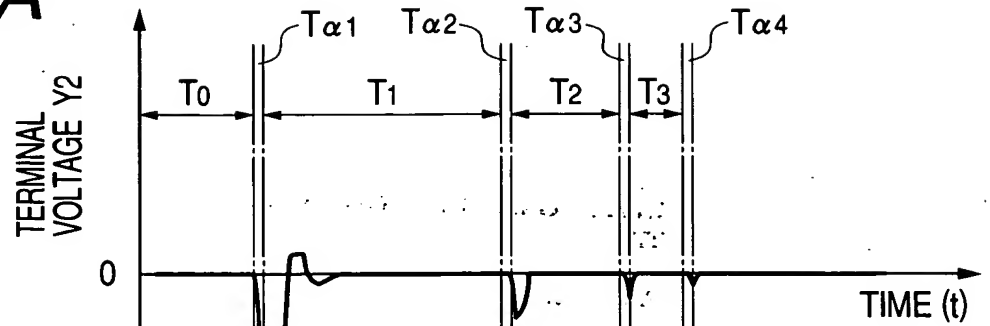
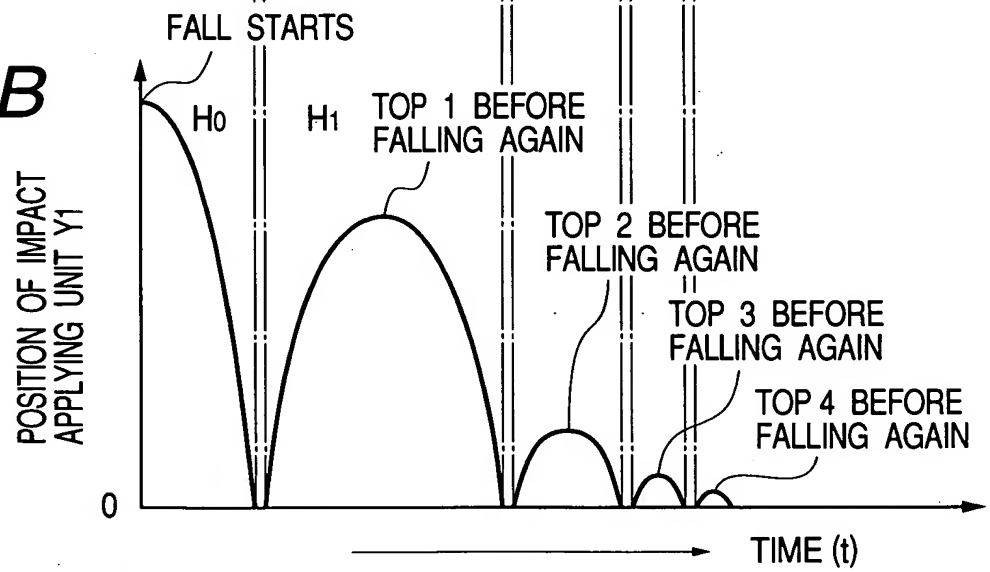
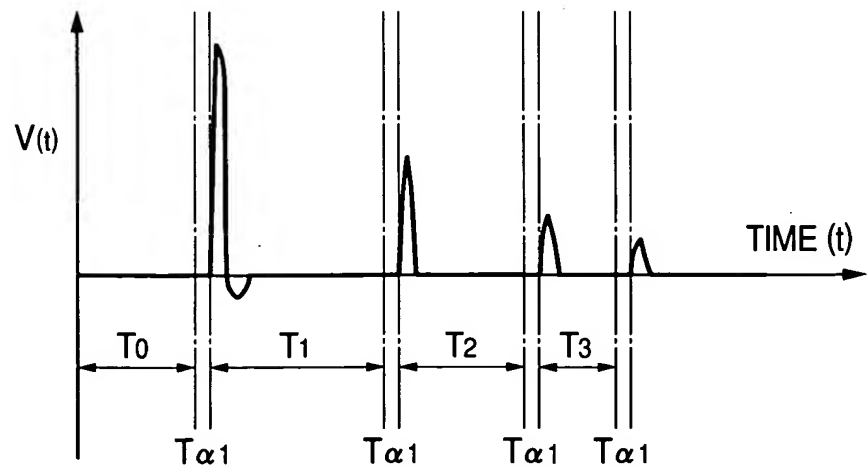
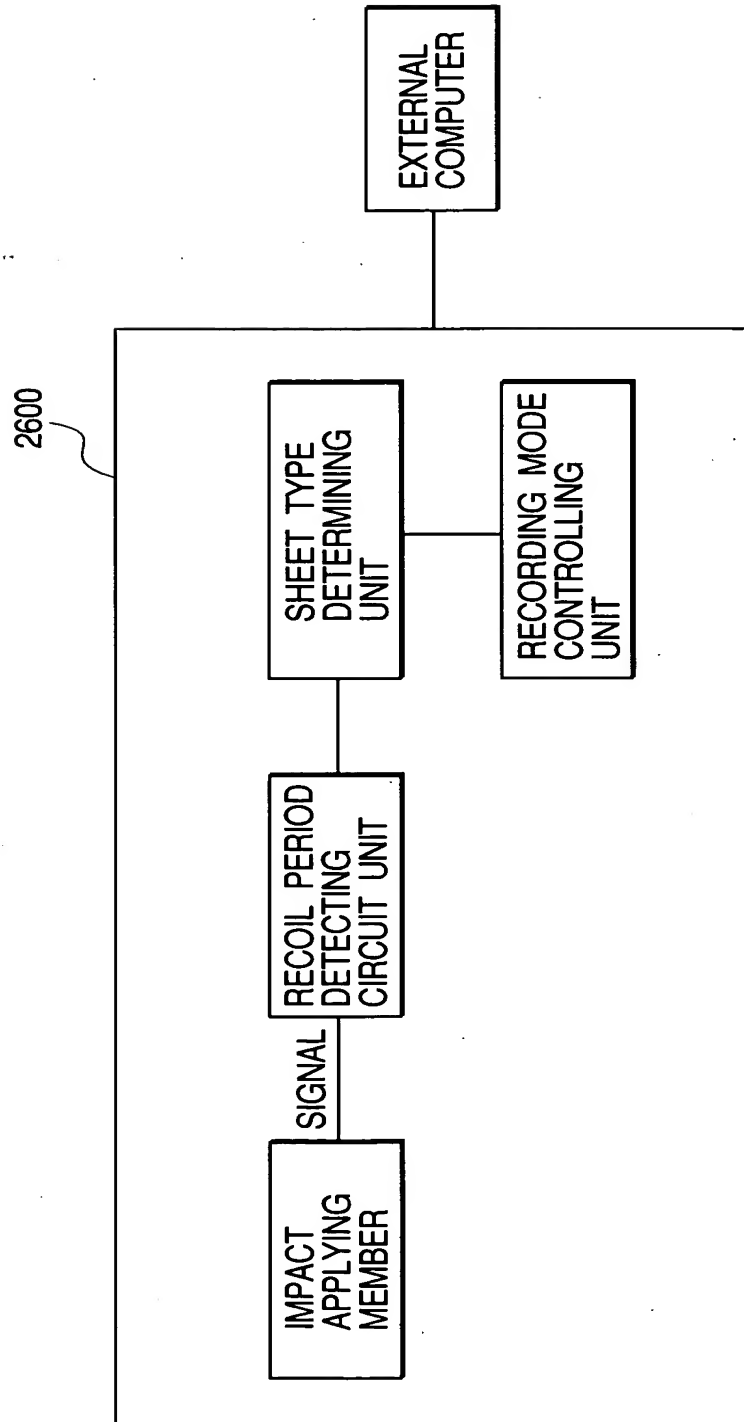
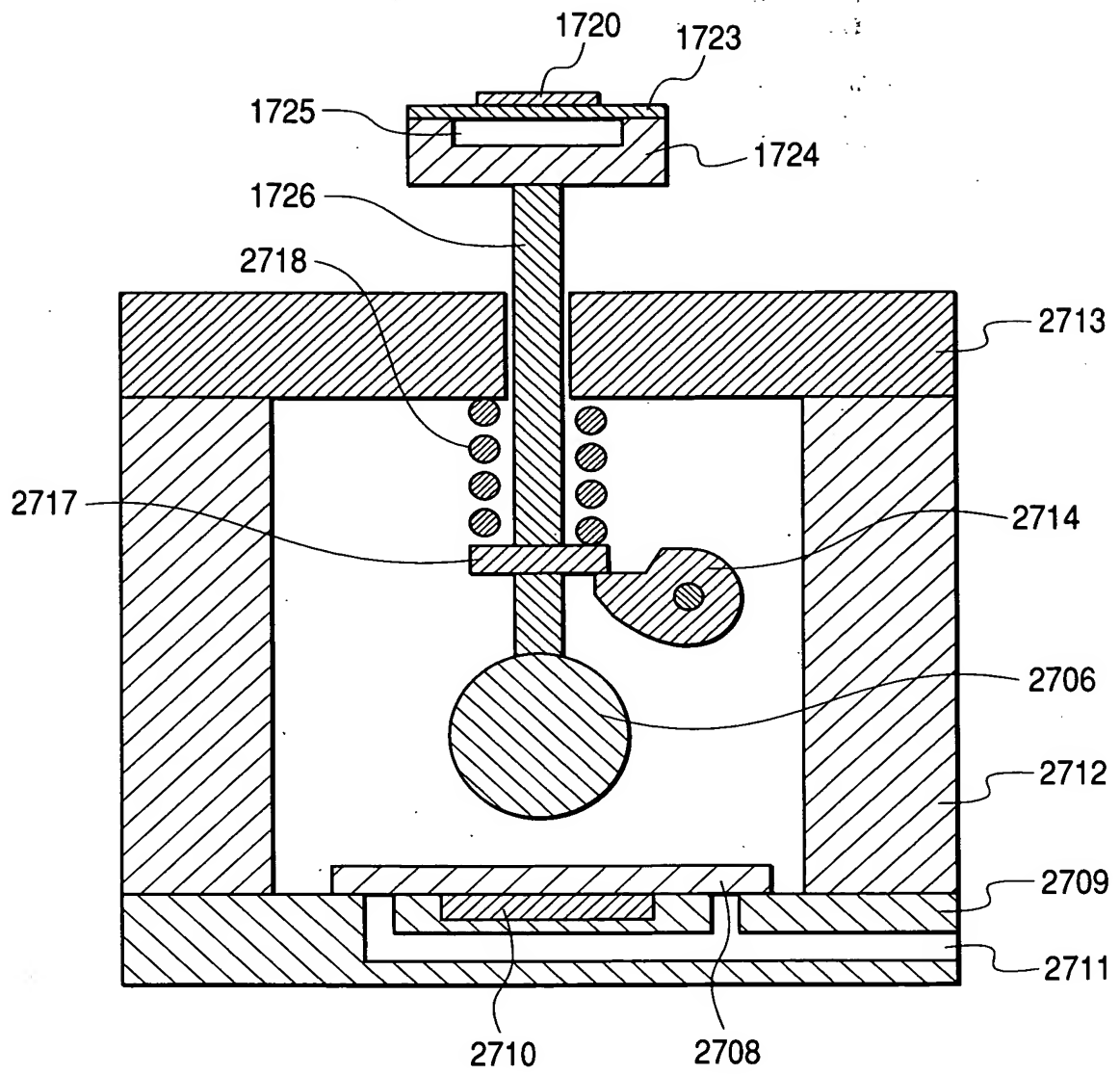
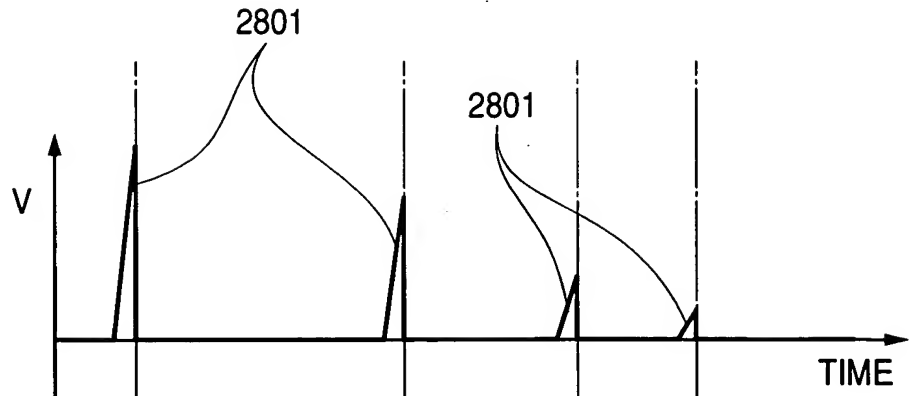
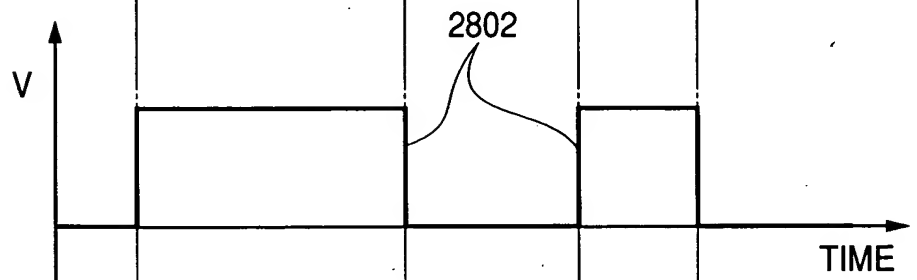
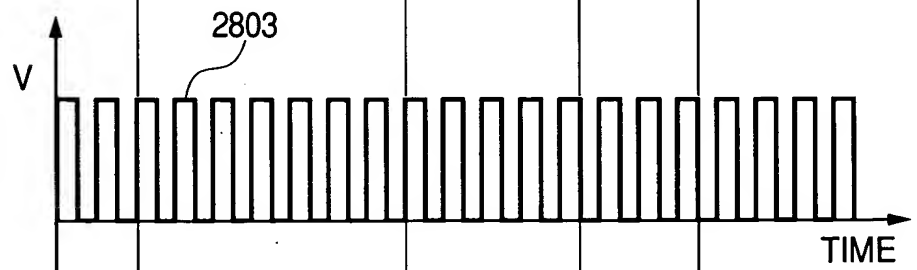
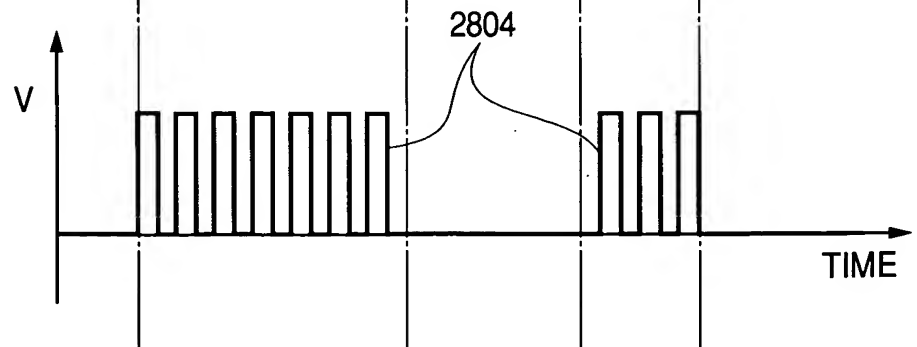
**FIG. 15A****FIG. 15B****FIG. 15C**

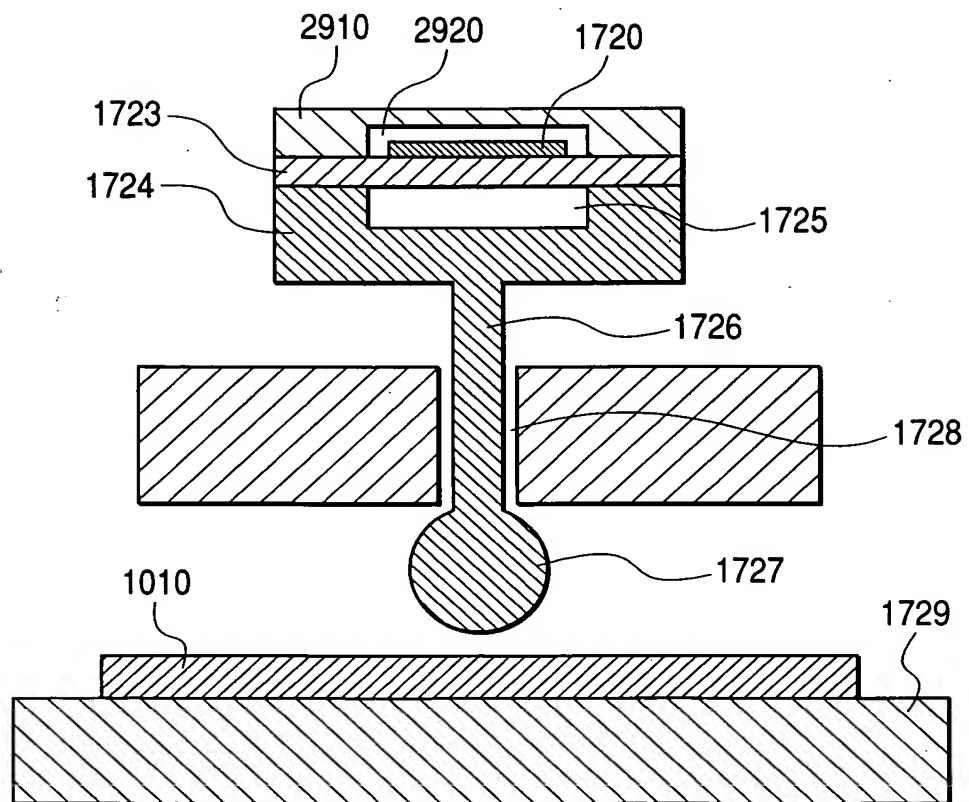
FIG. 16



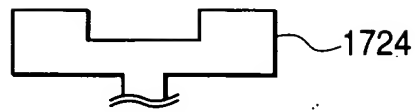
**FIG. 17**



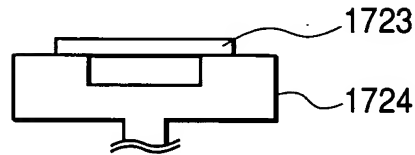
**FIG. 18A****FIG. 18B****FIG. 18C****FIG. 18D**

**FIG. 19**

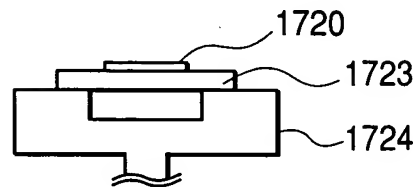
**FIG. 20A**



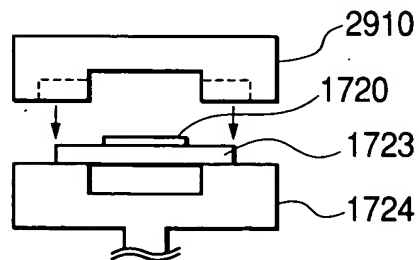
**FIG. 20B**



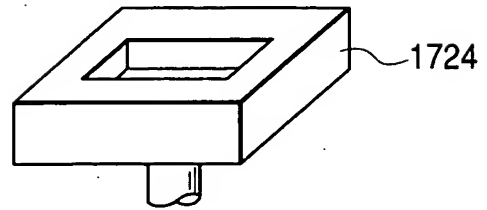
**FIG. 20C**



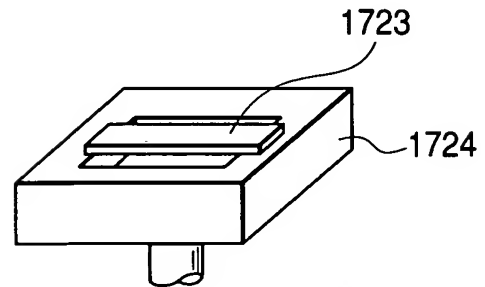
**FIG. 20D**



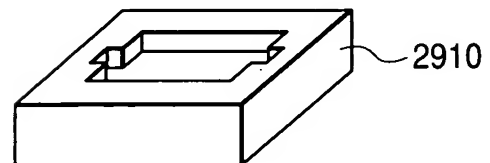
**FIG. 20E**

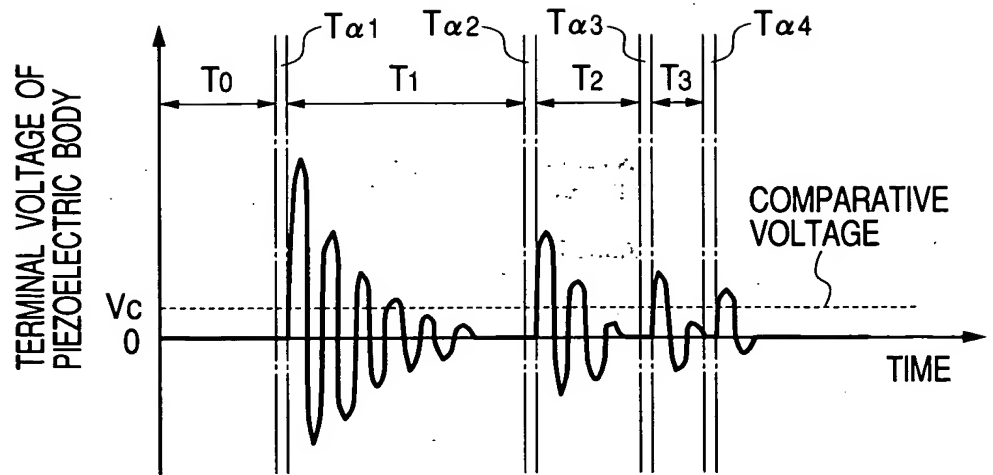
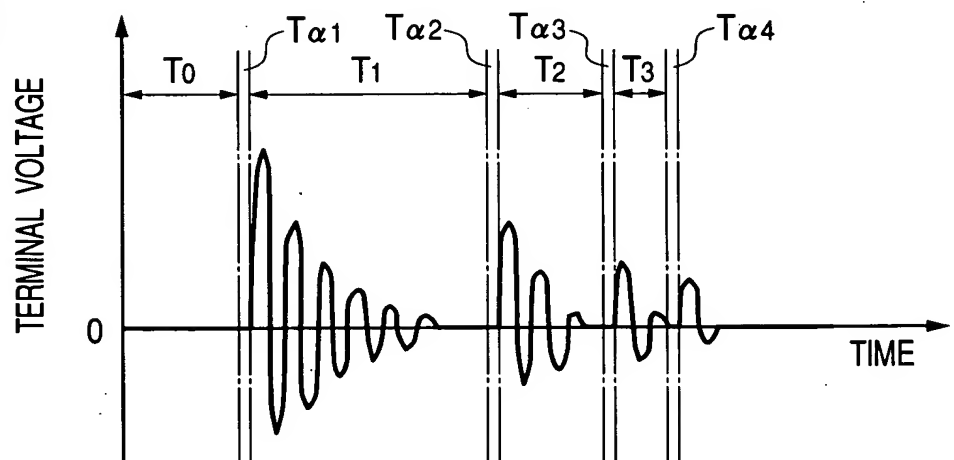
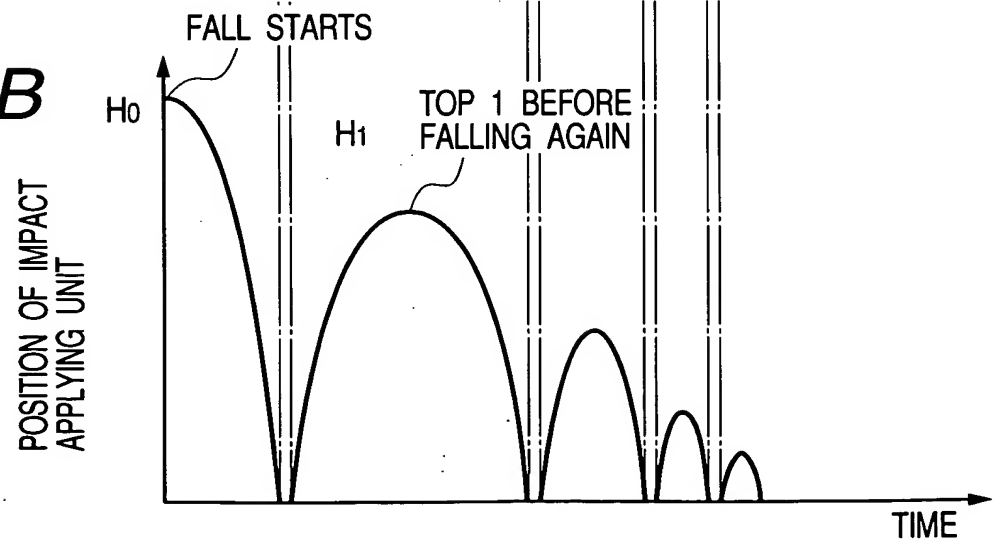


**FIG. 20F**

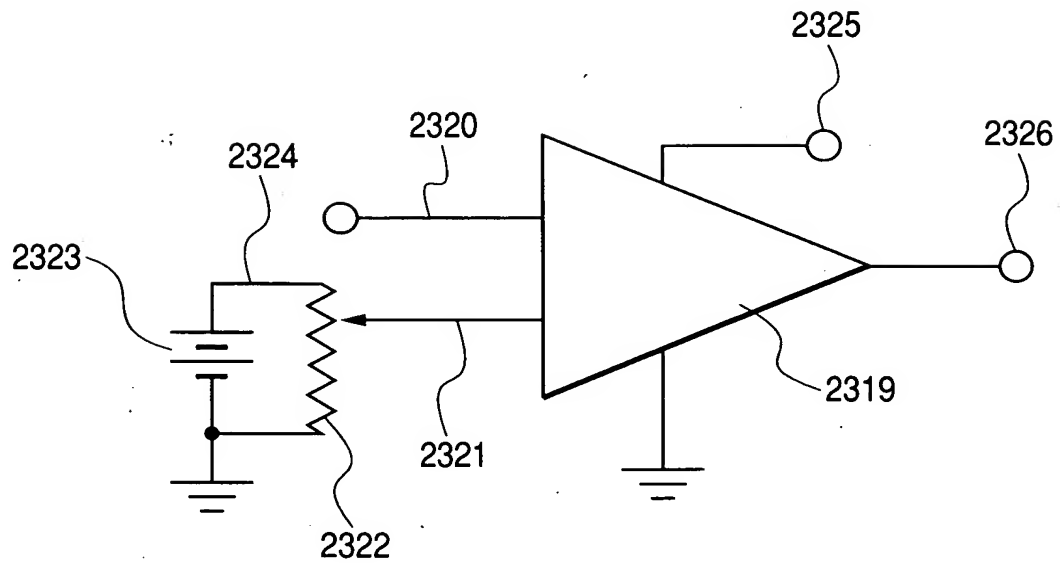
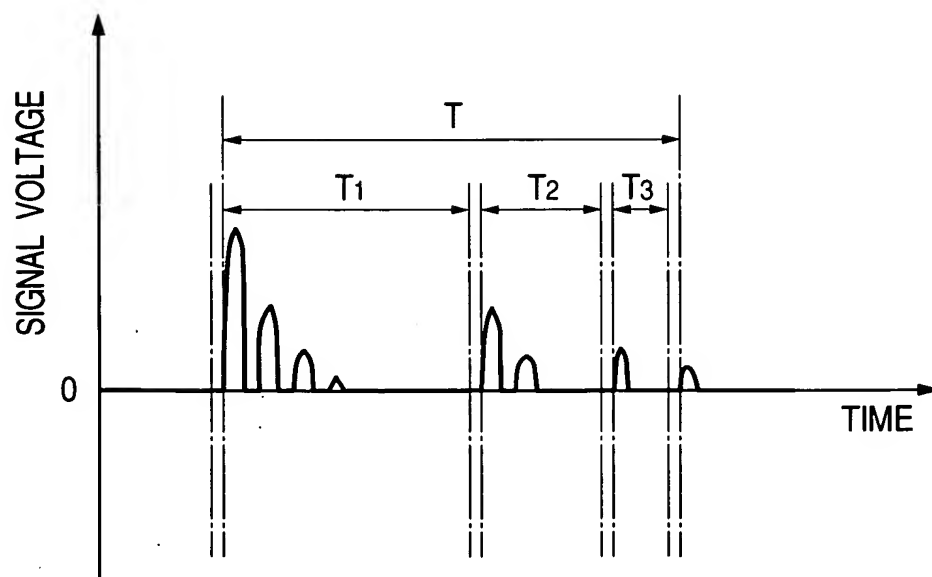


**FIG. 20G**



**FIG. 21****FIG. 22A****FIG. 22B**



**FIG. 23****FIG. 24**

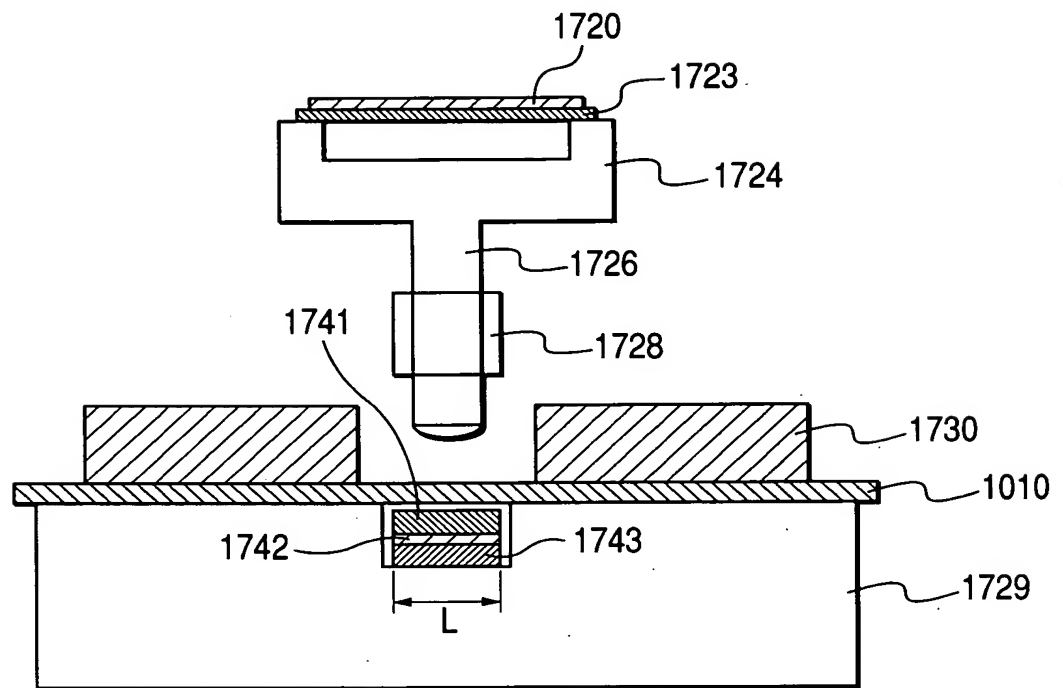
**FIG. 25**

FIG. 26A

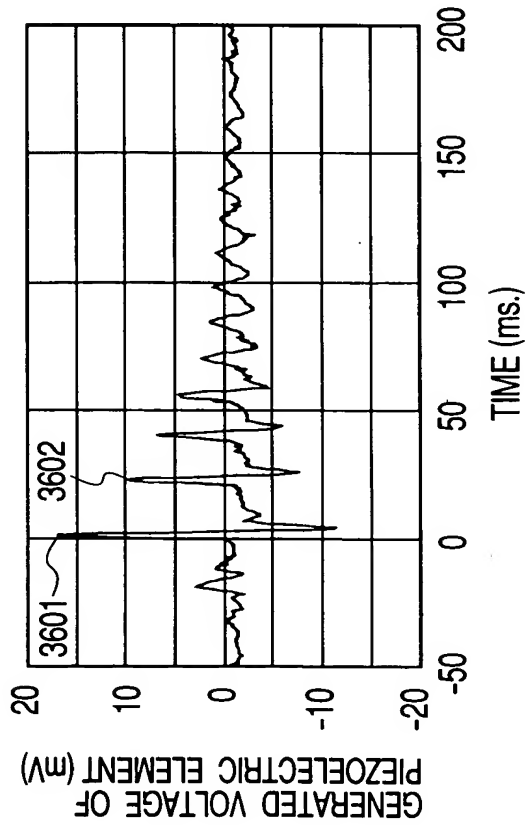


FIG. 26C

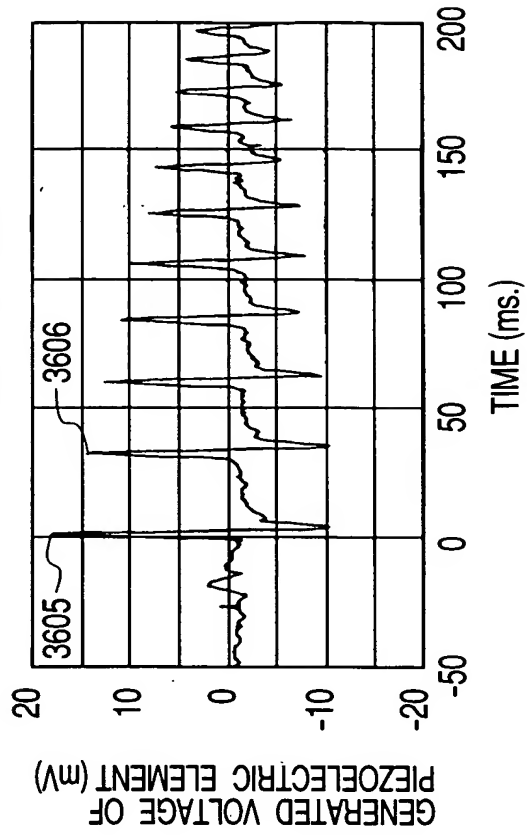


FIG. 26B

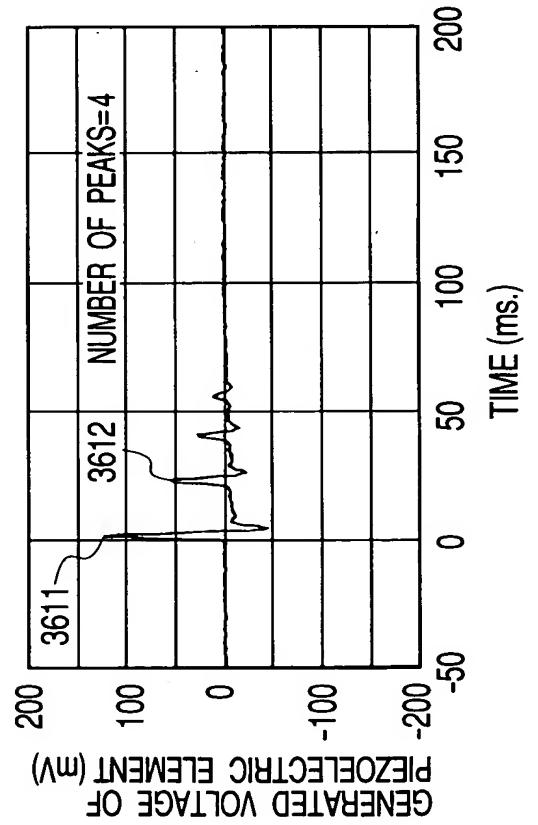
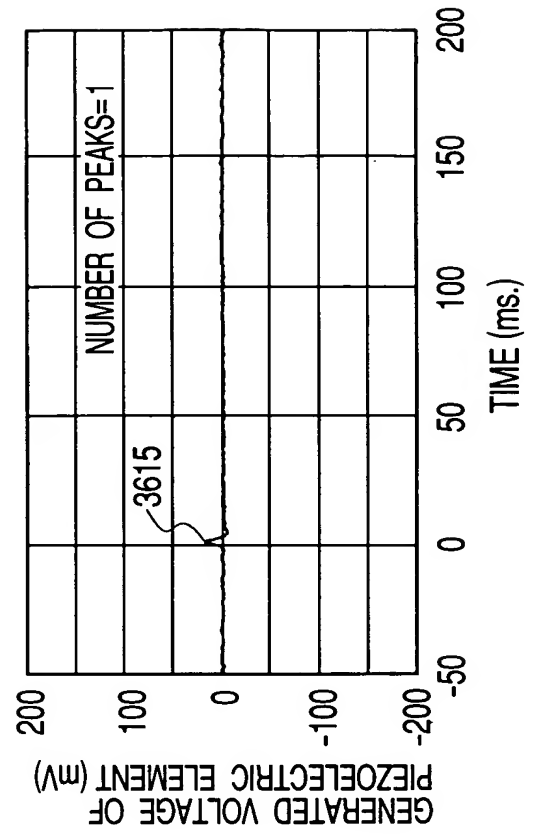


FIG. 26D



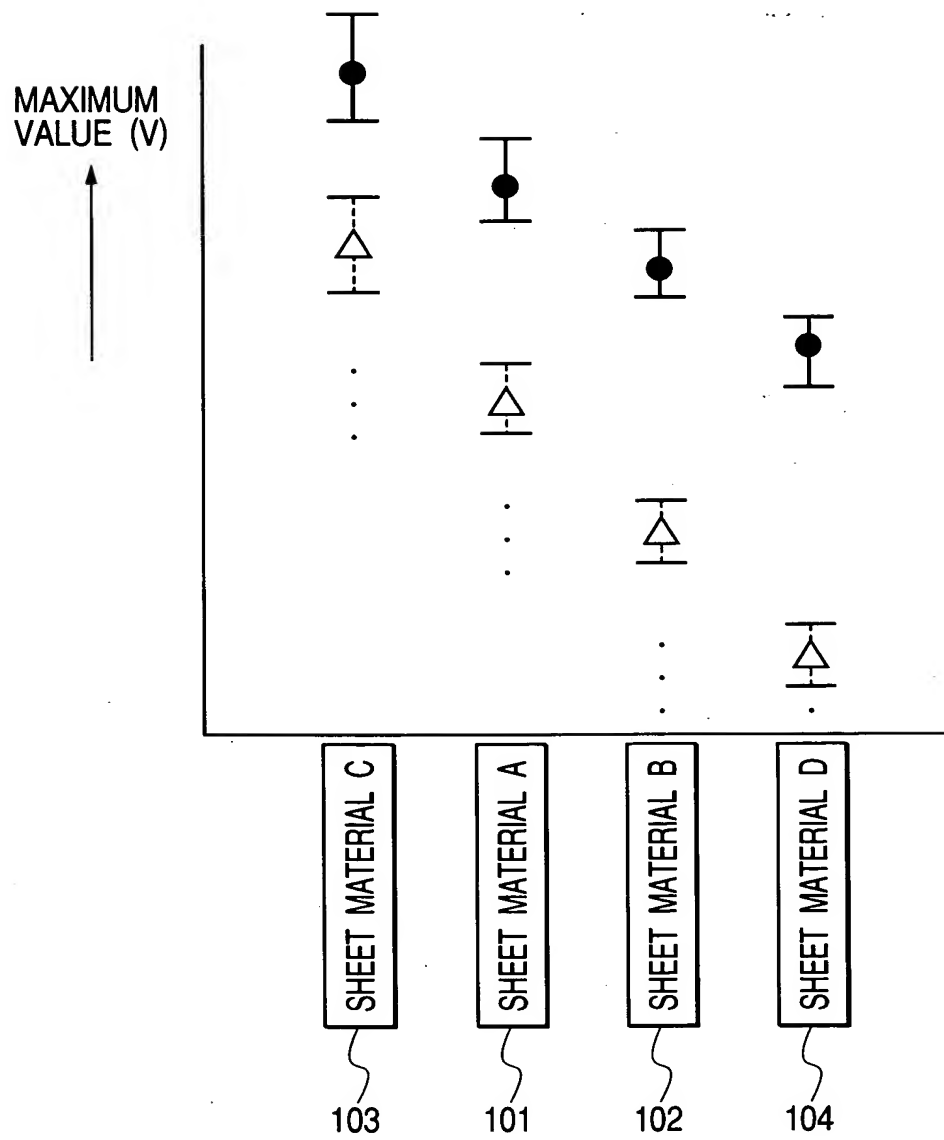
*FIG. 27*

FIG. 28

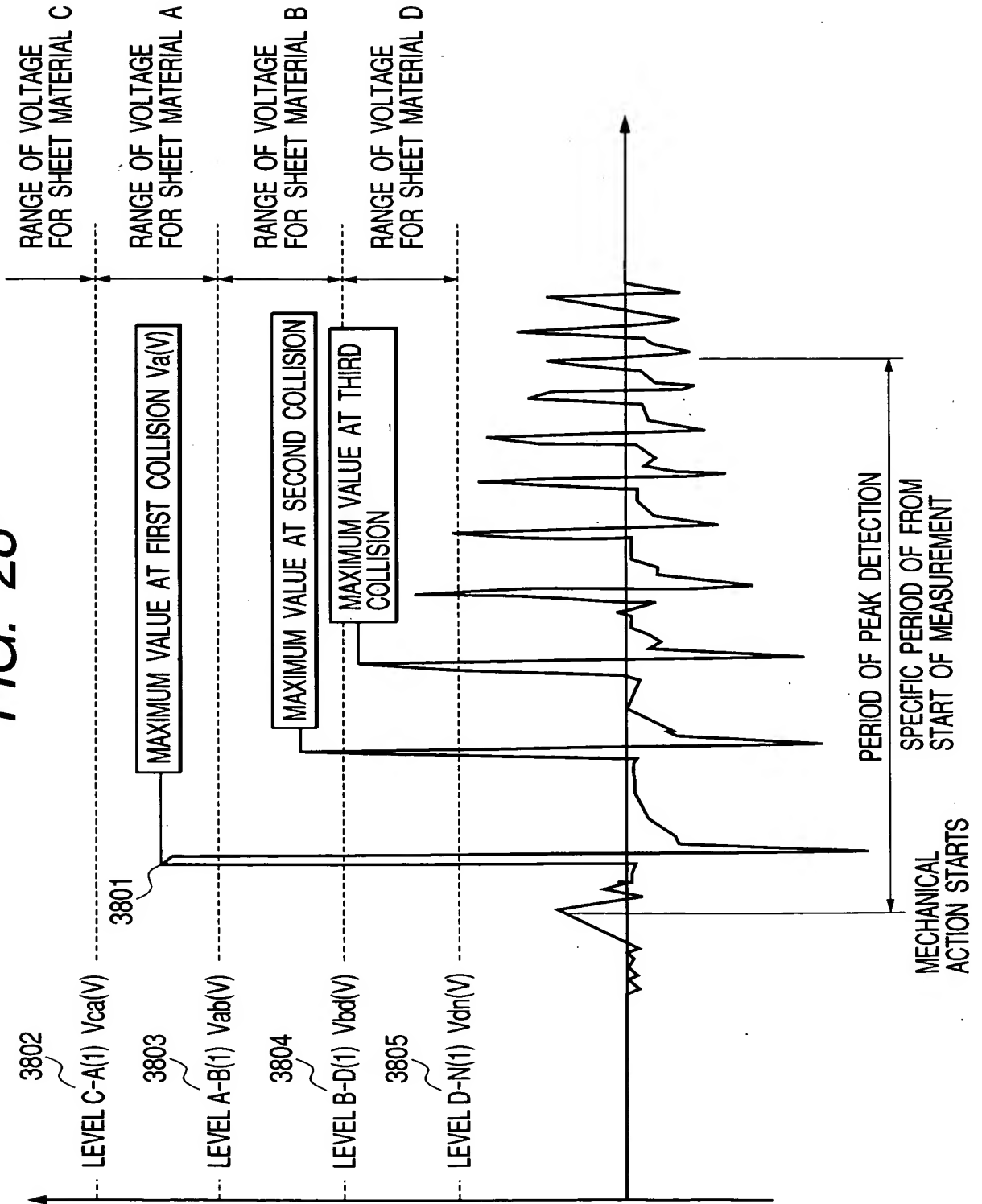
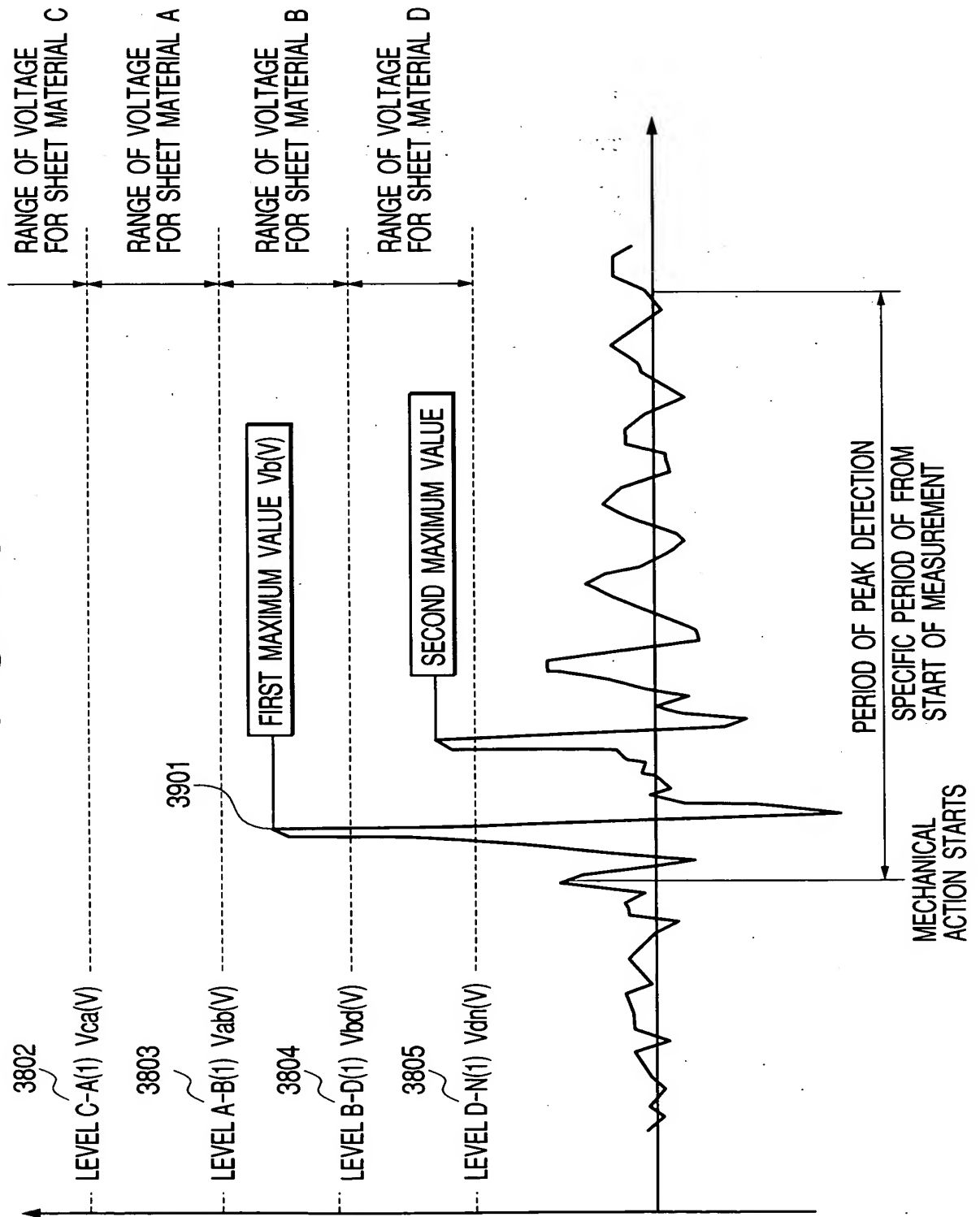


FIG. 29



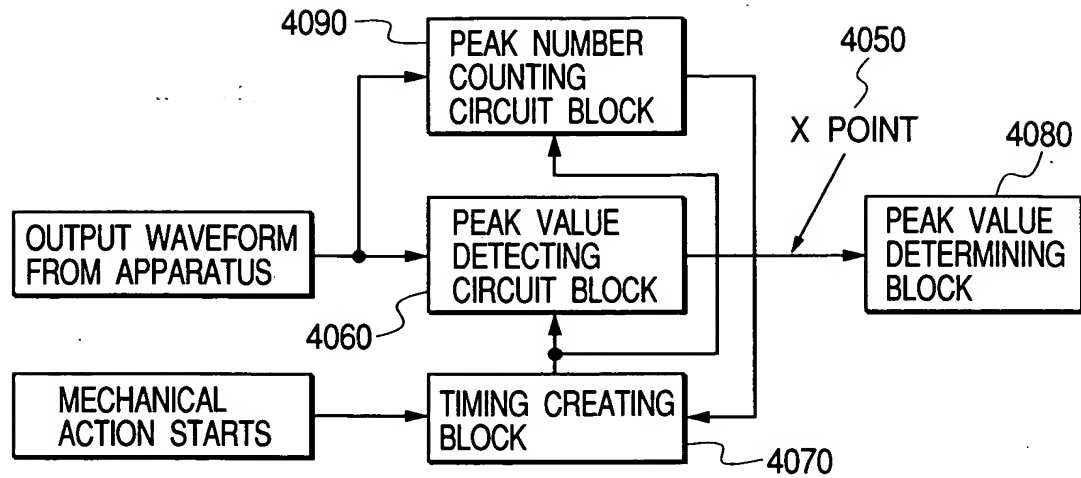
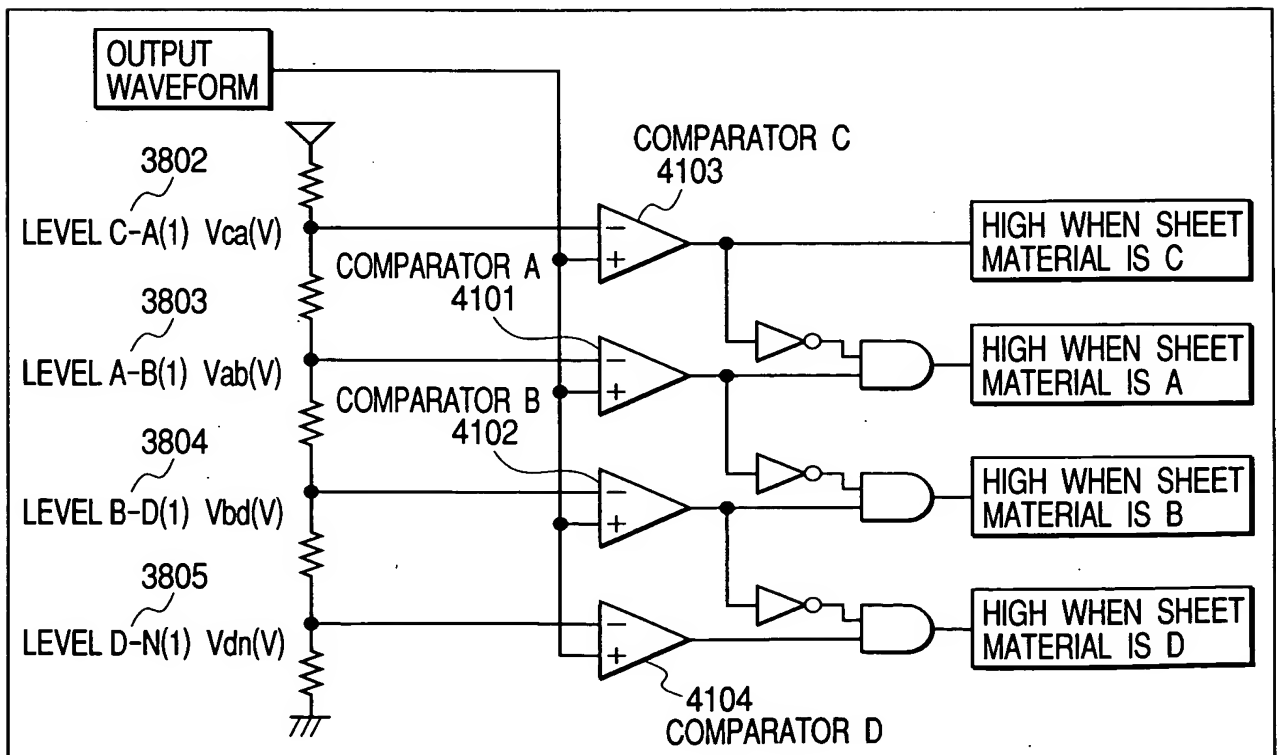
**FIG. 30****FIG. 31**

FIG. 32

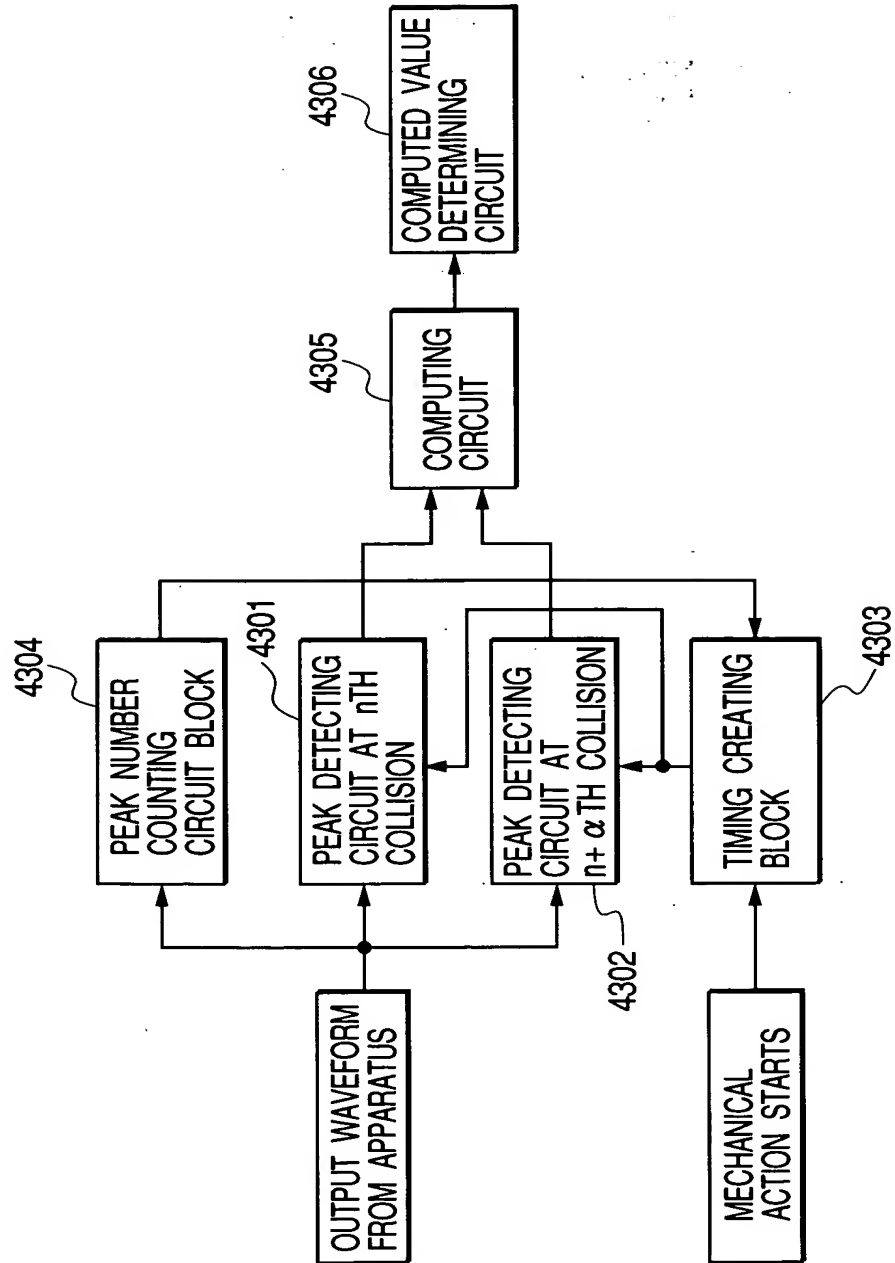




FIG. 33

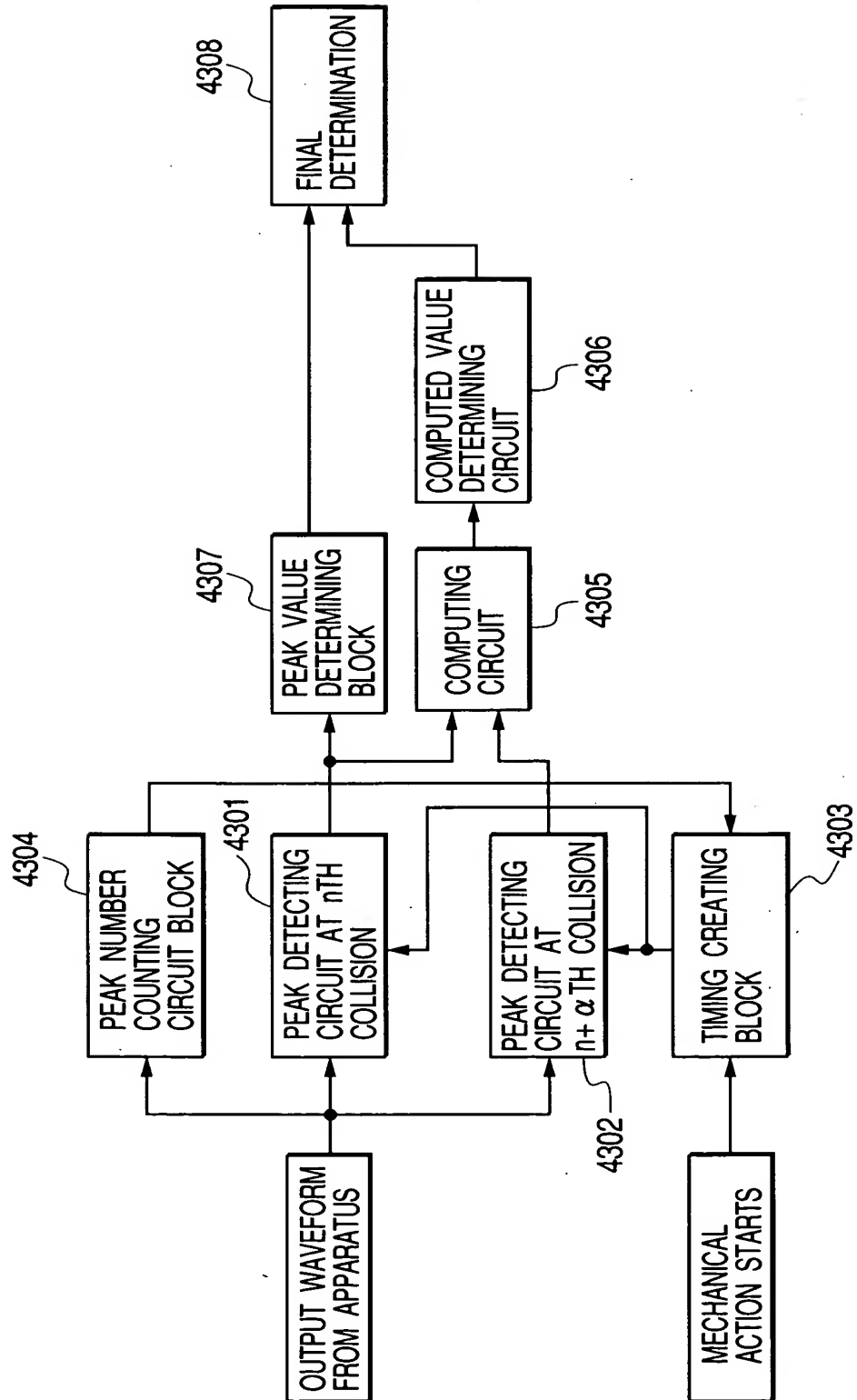


FIG. 34

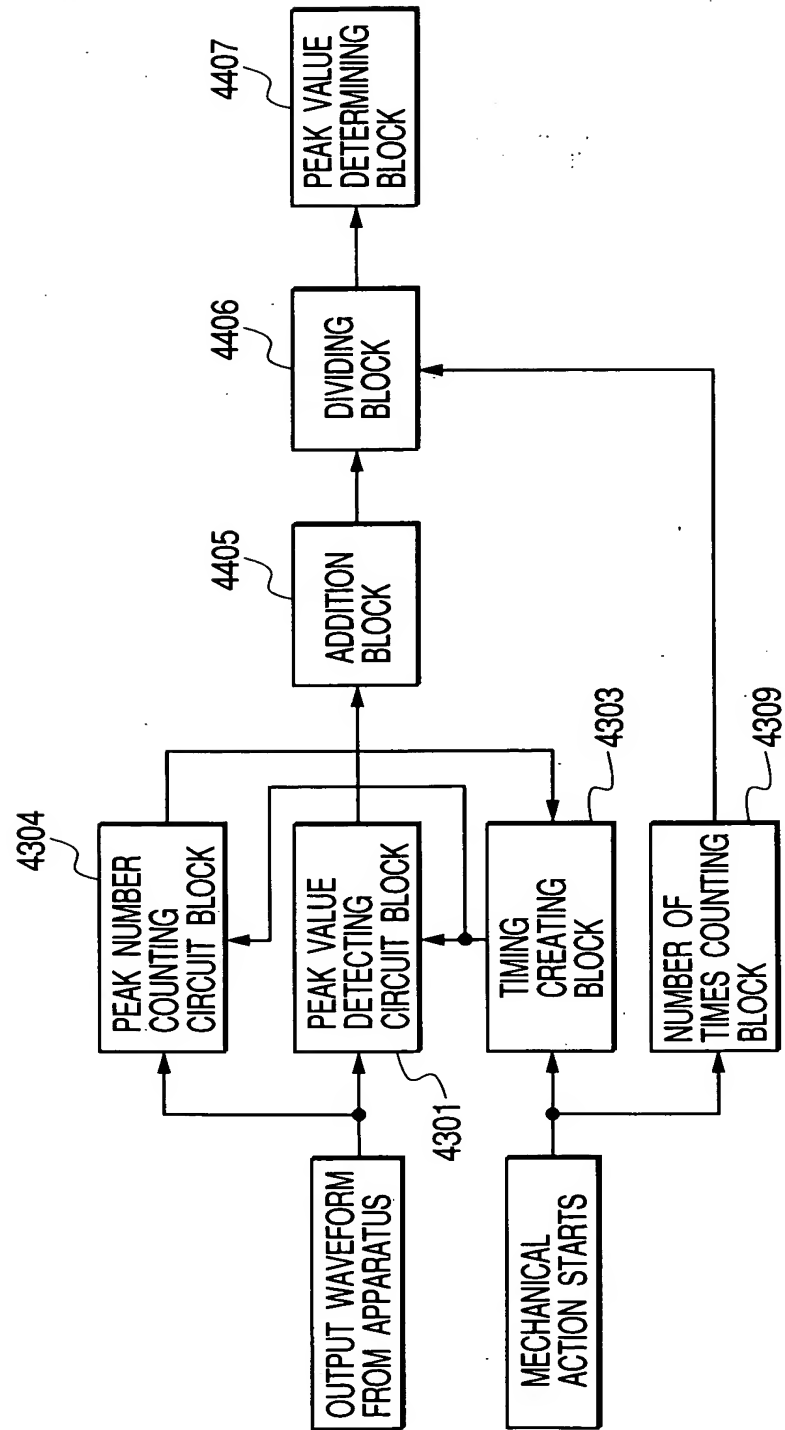
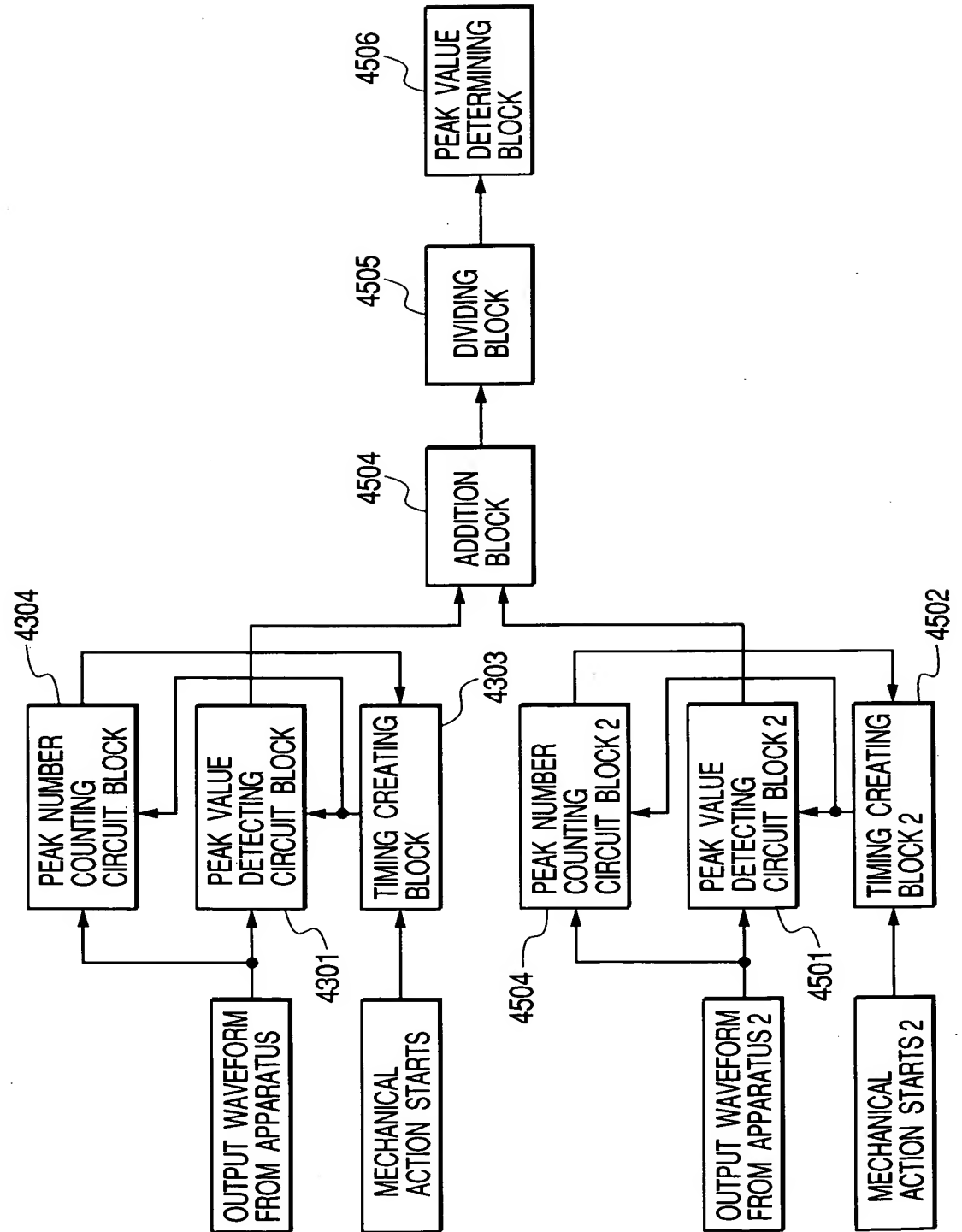
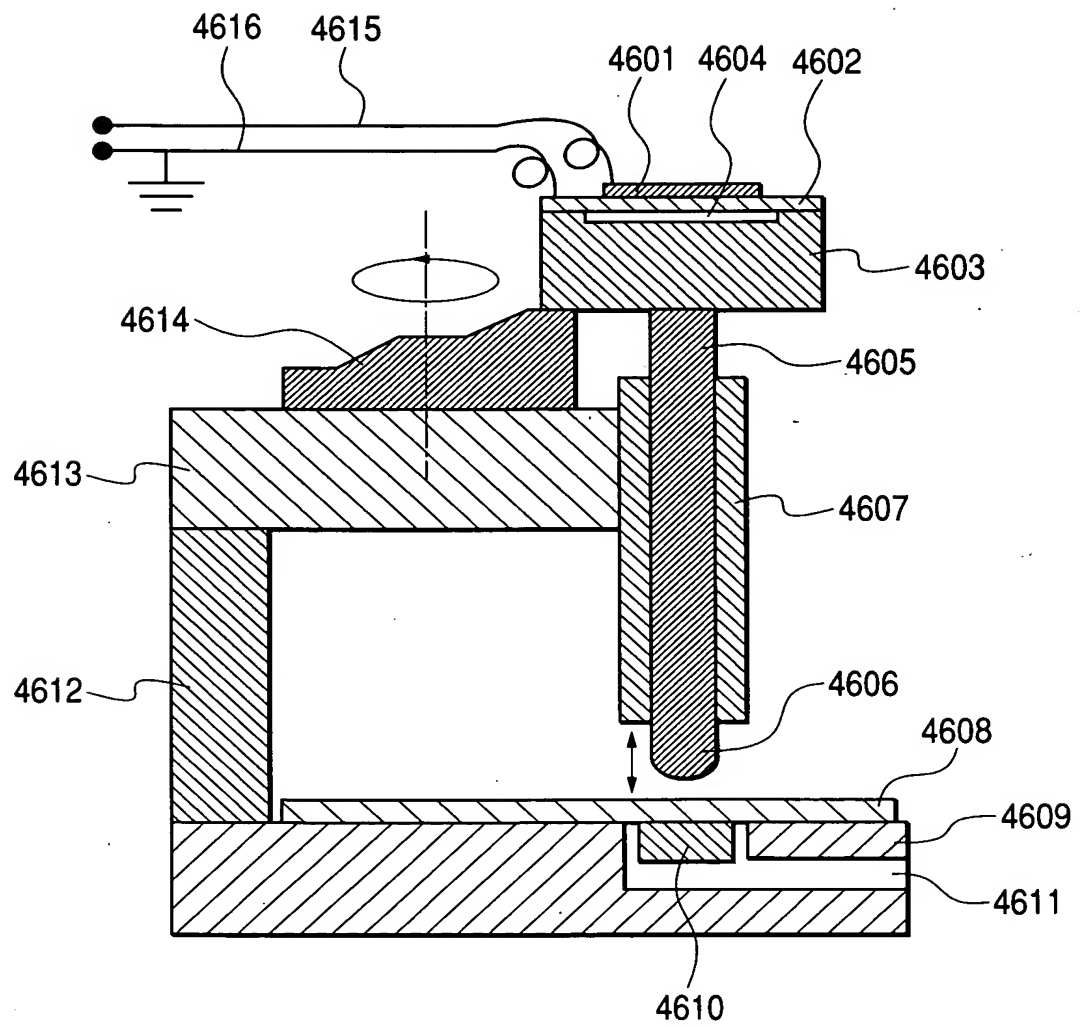


FIG. 35



**FIG. 36**

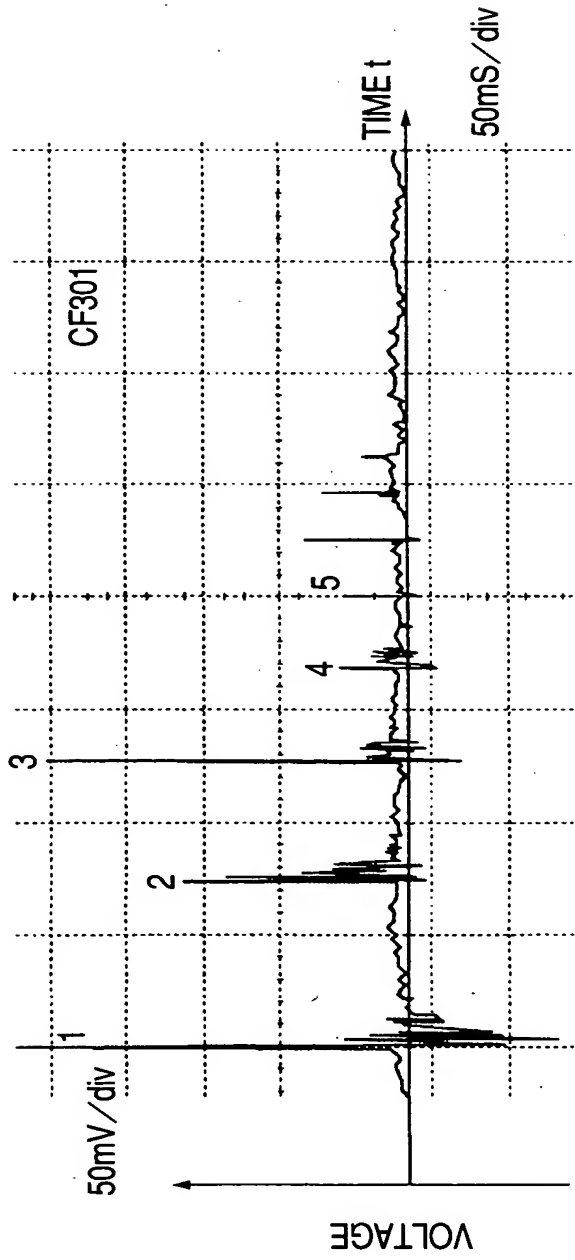


FIG. 37A

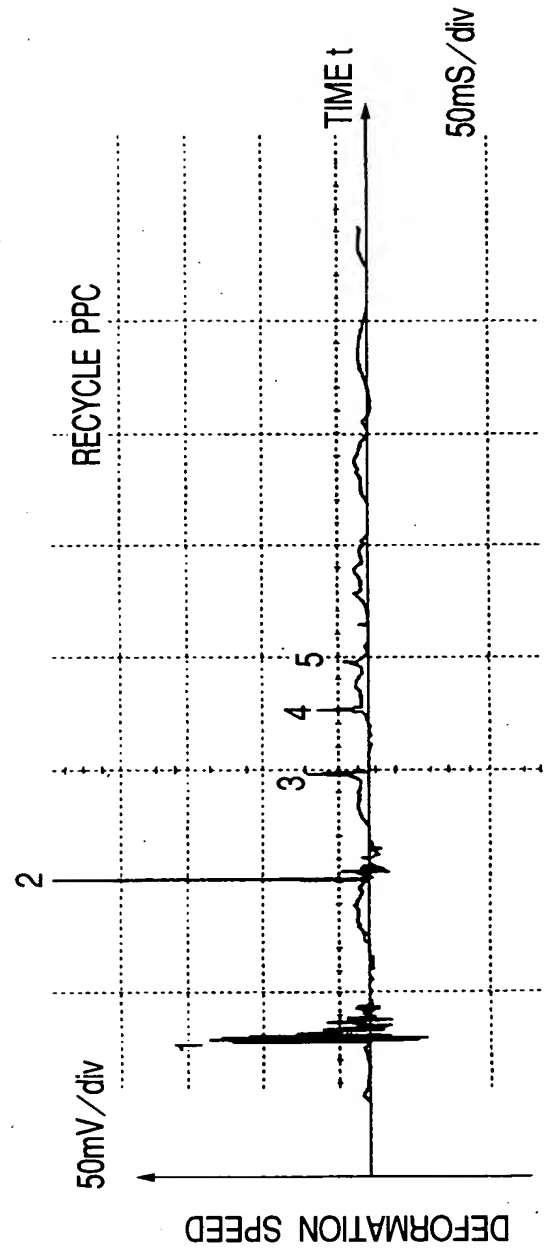


FIG. 37B

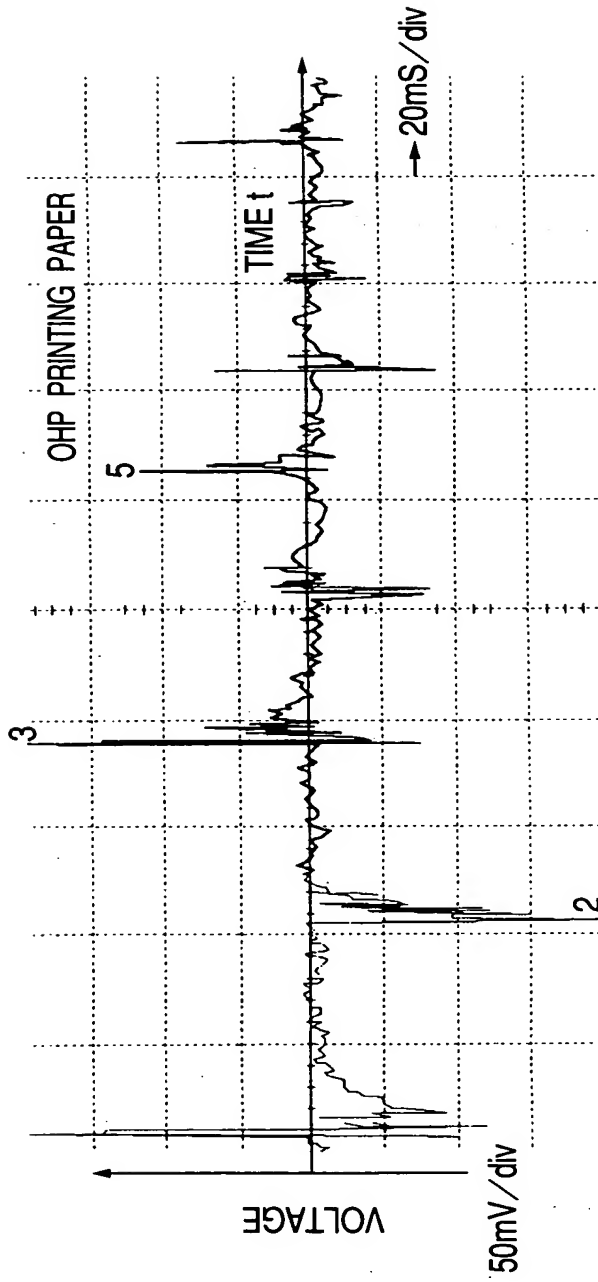


FIG. 38A

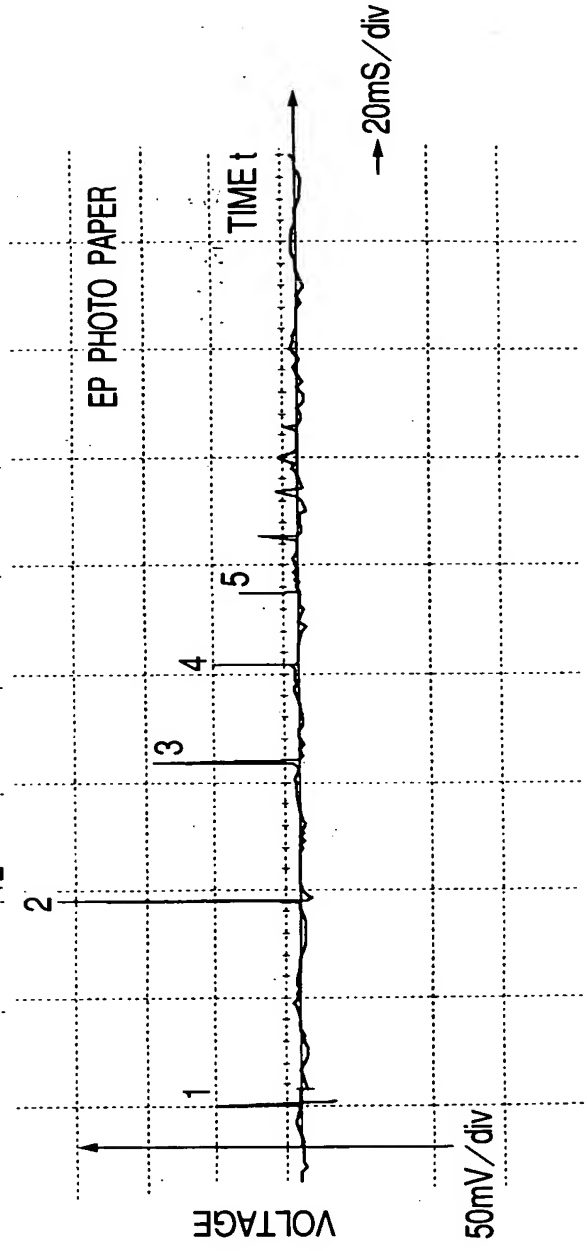
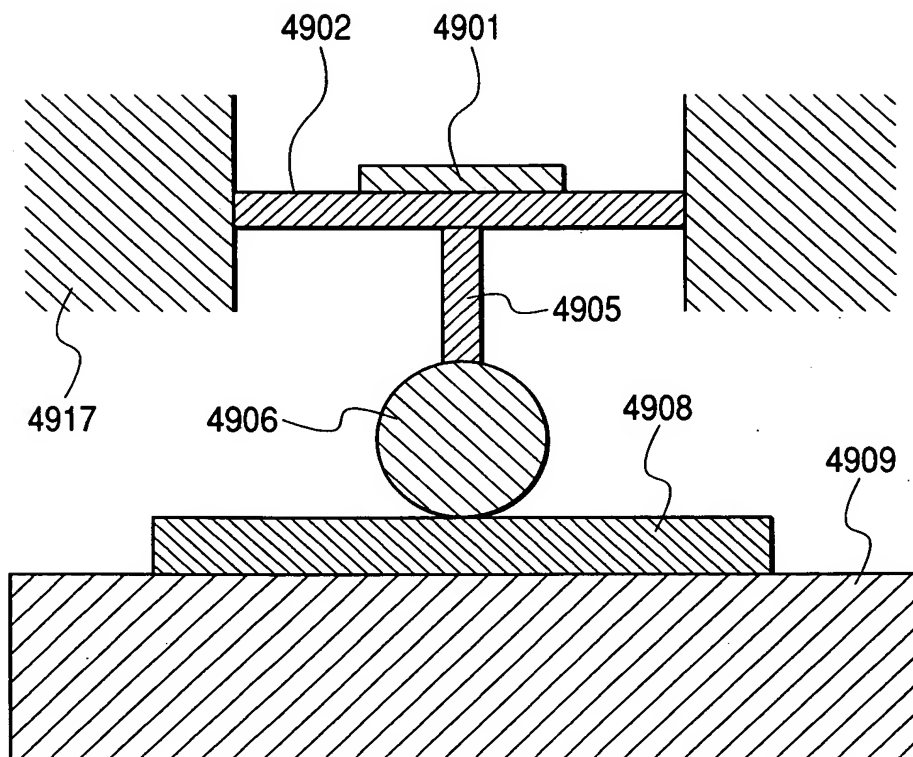
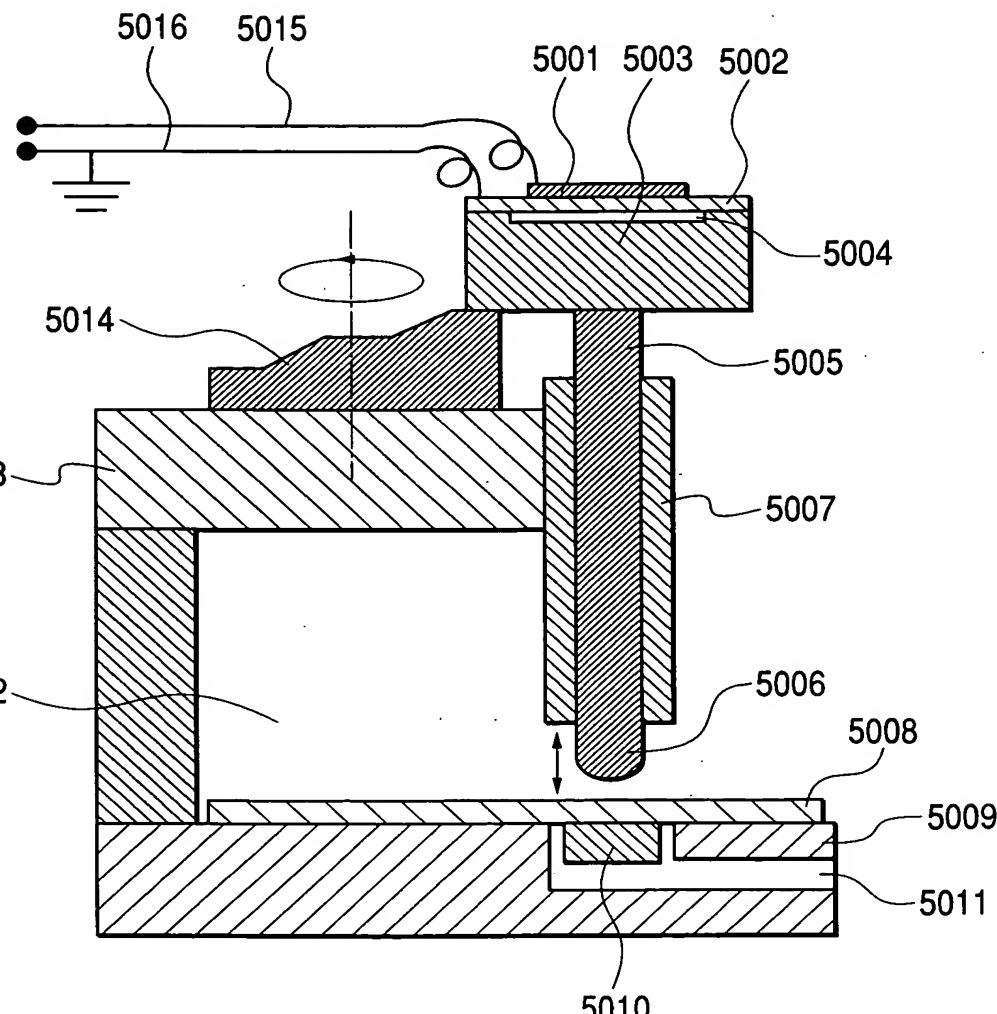


FIG. 38B

**FIG. 39**



1. *Chlorophyll a* (Chl *a*)





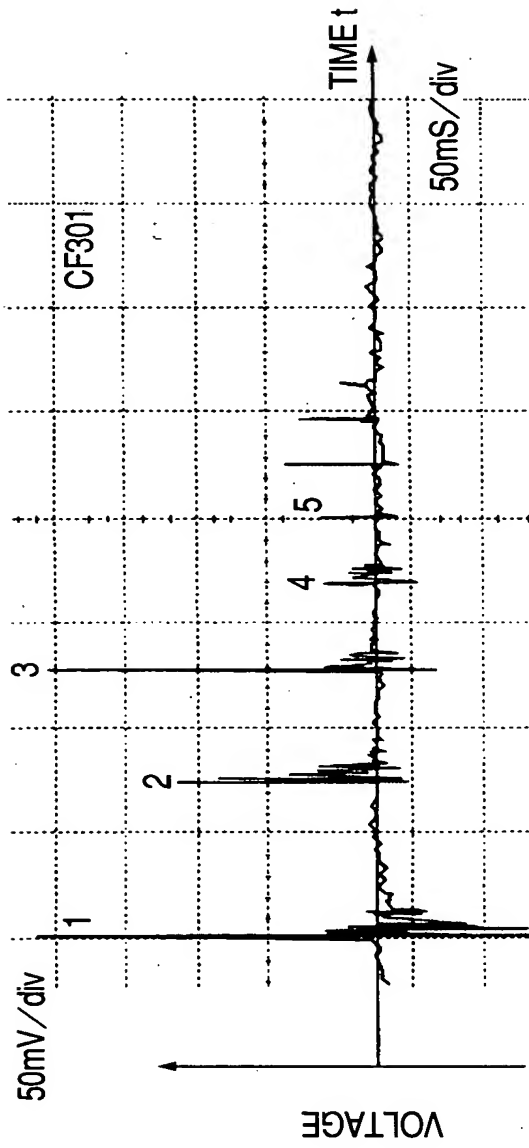


FIG. 41A

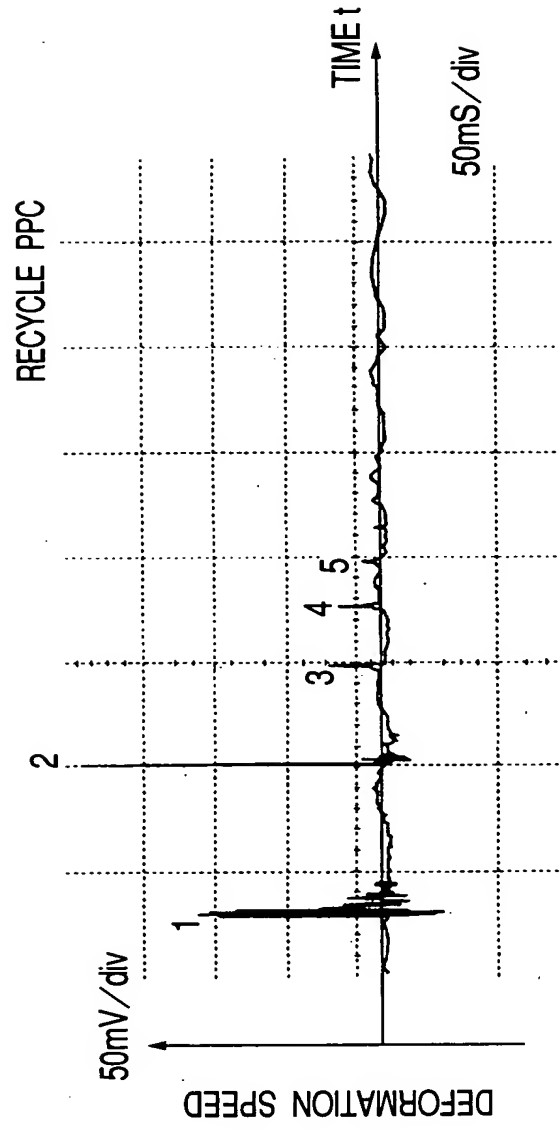


FIG. 41B

FIG. 42

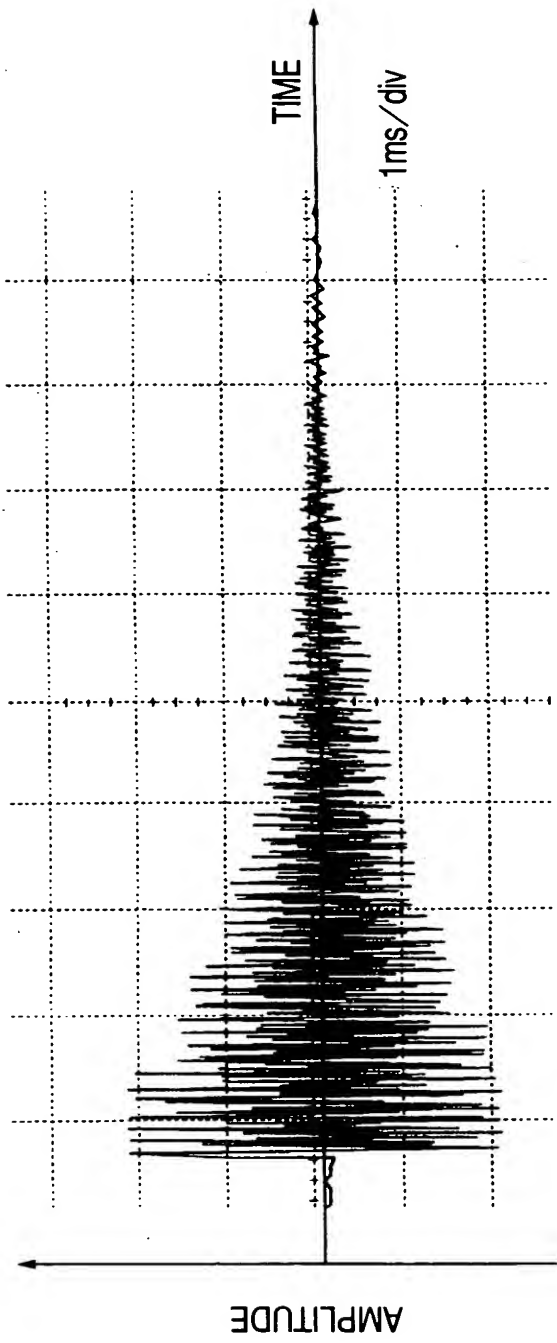
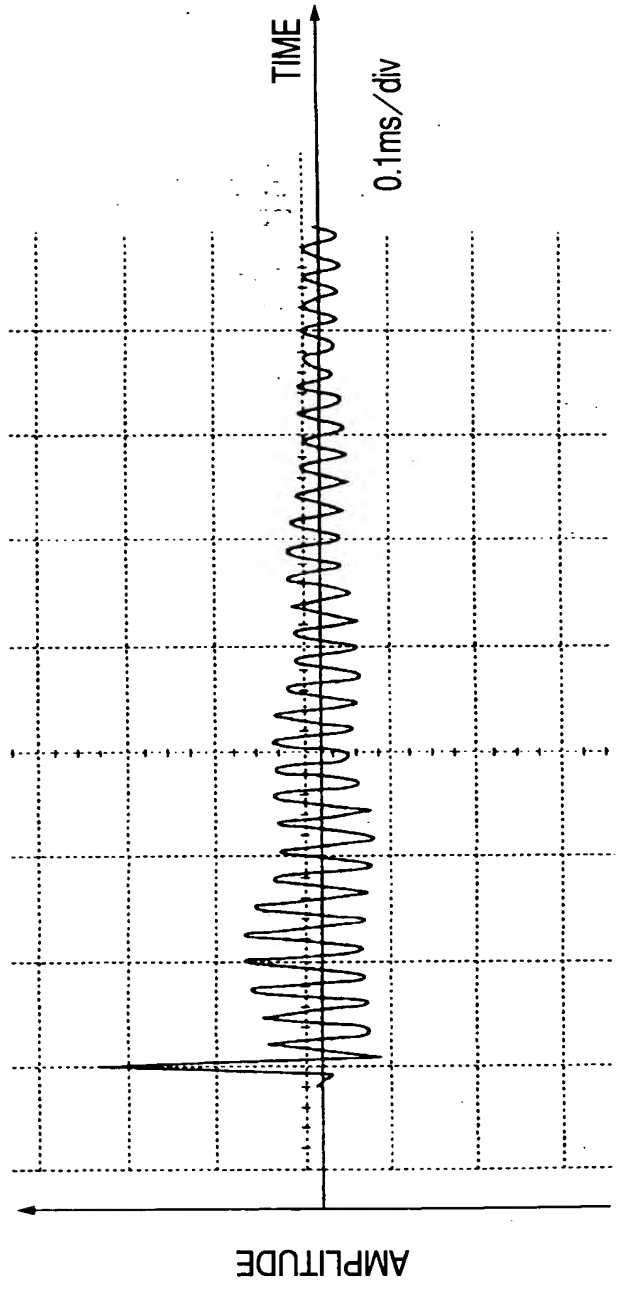
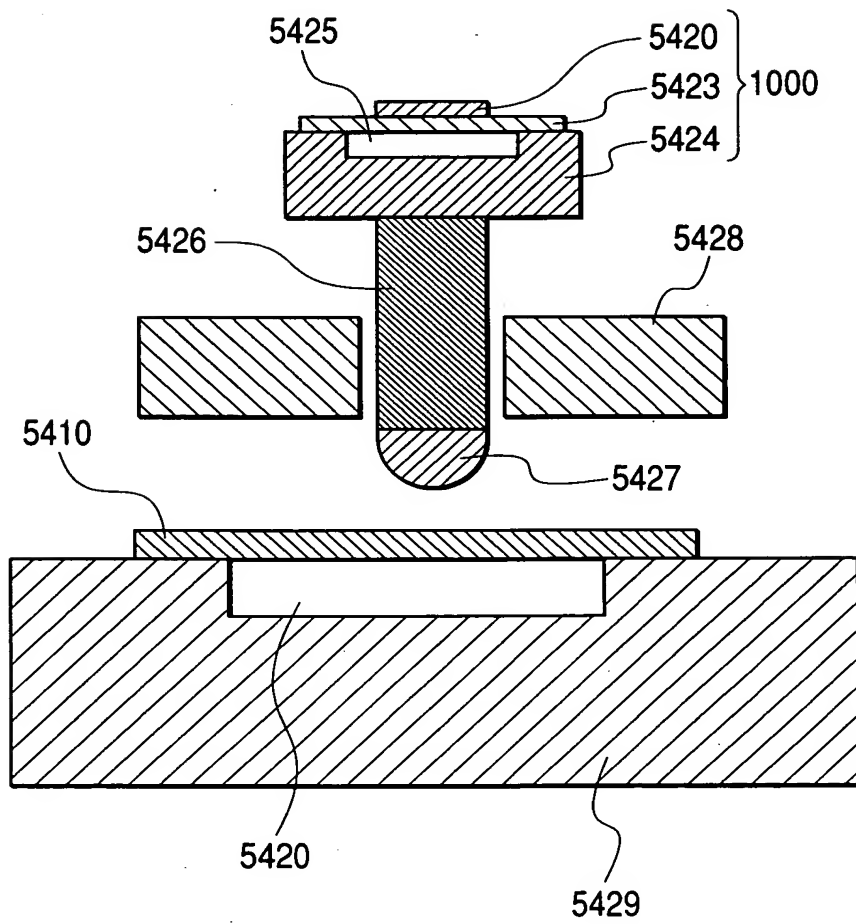


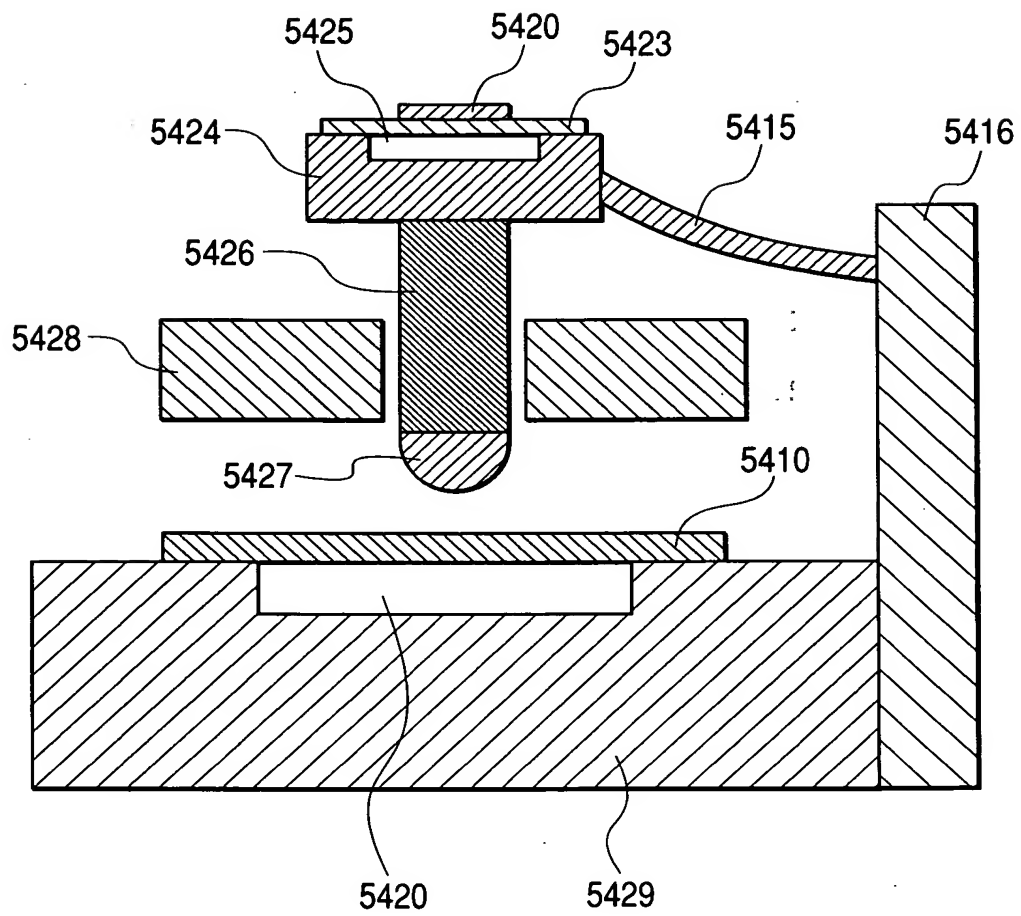
FIG. 43



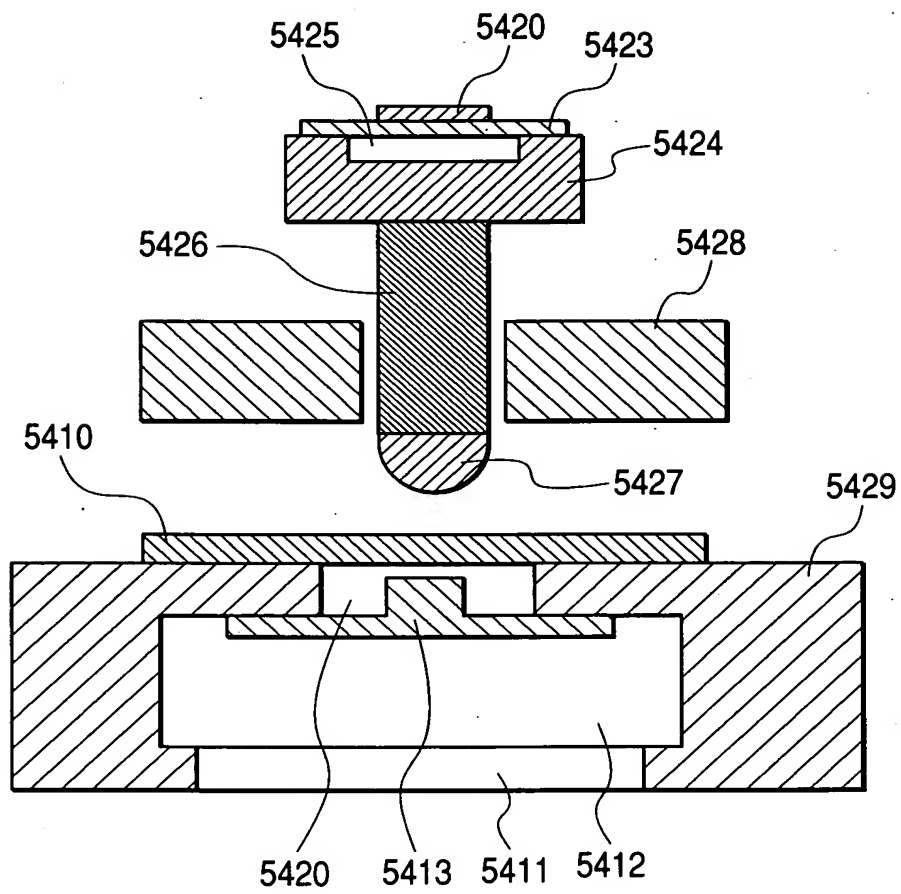
**FIG. 44**

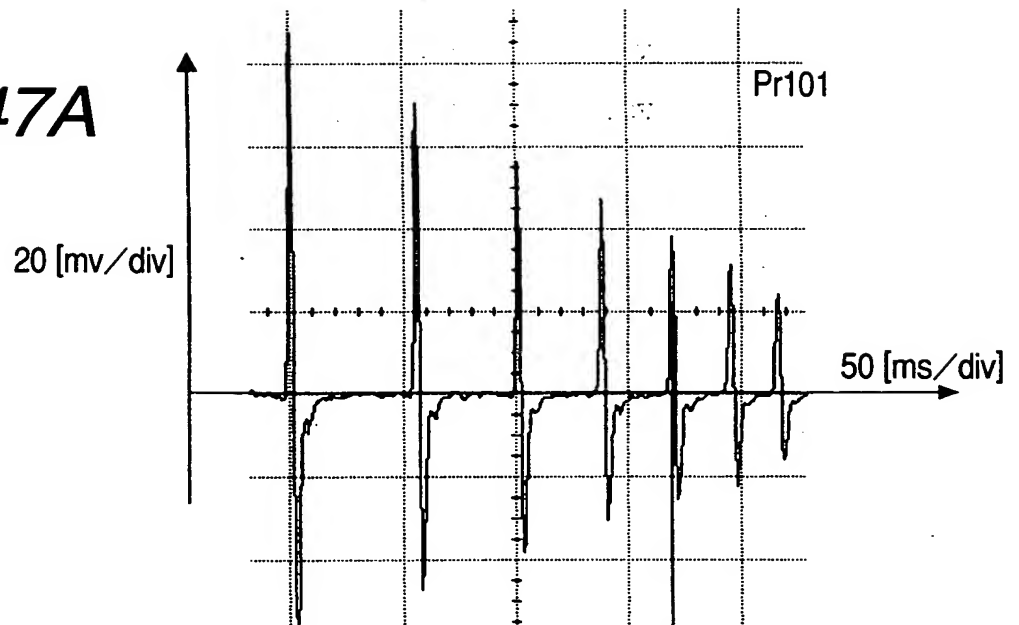
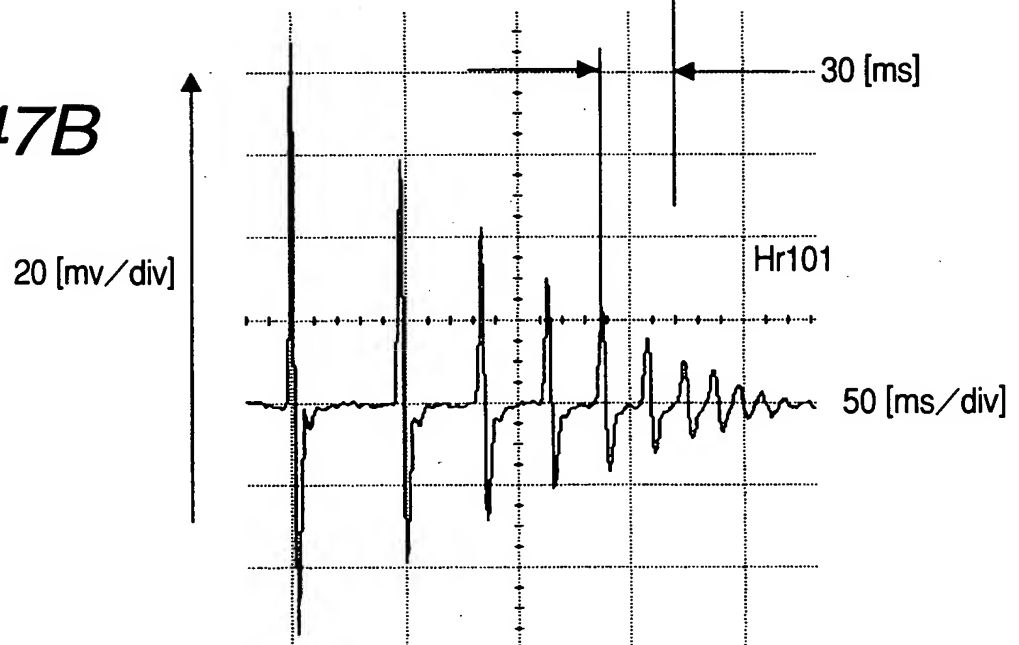


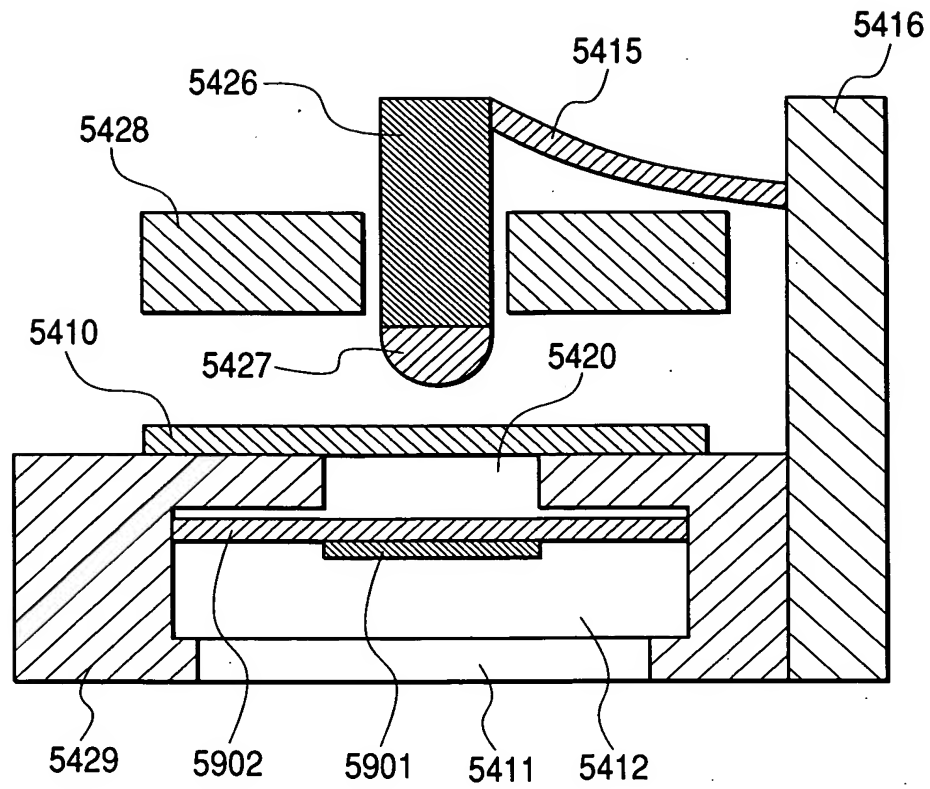
**FIG. 45**

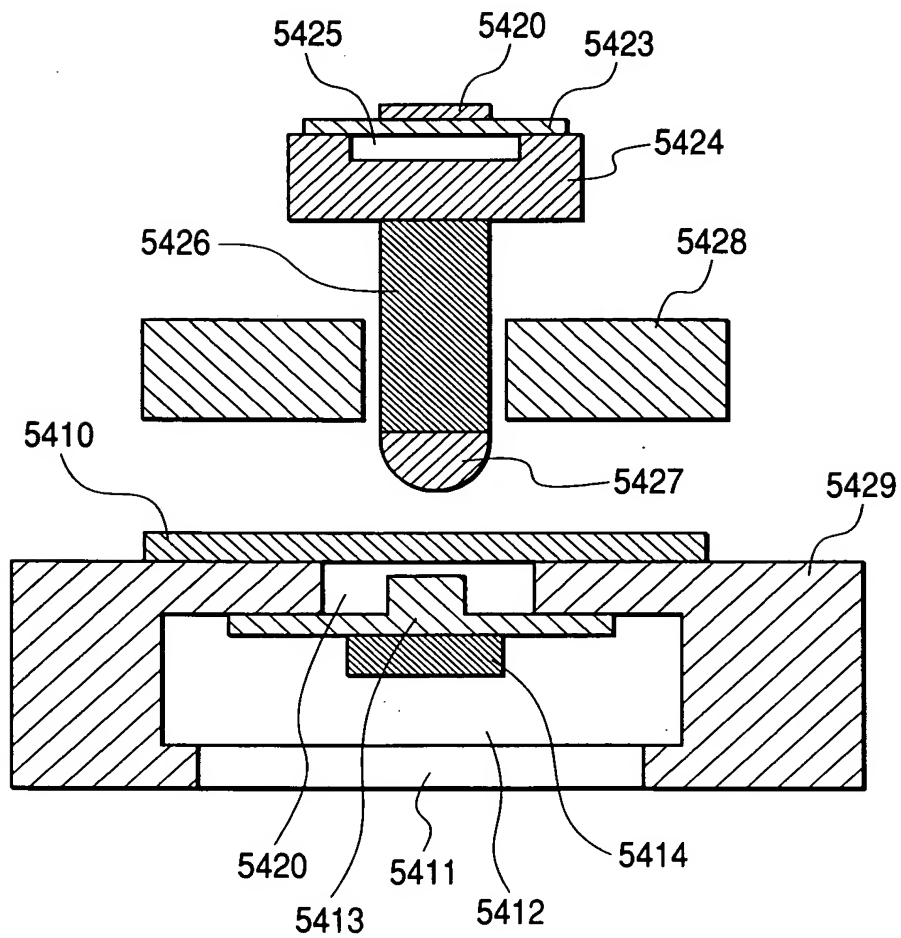


**FIG. 46**

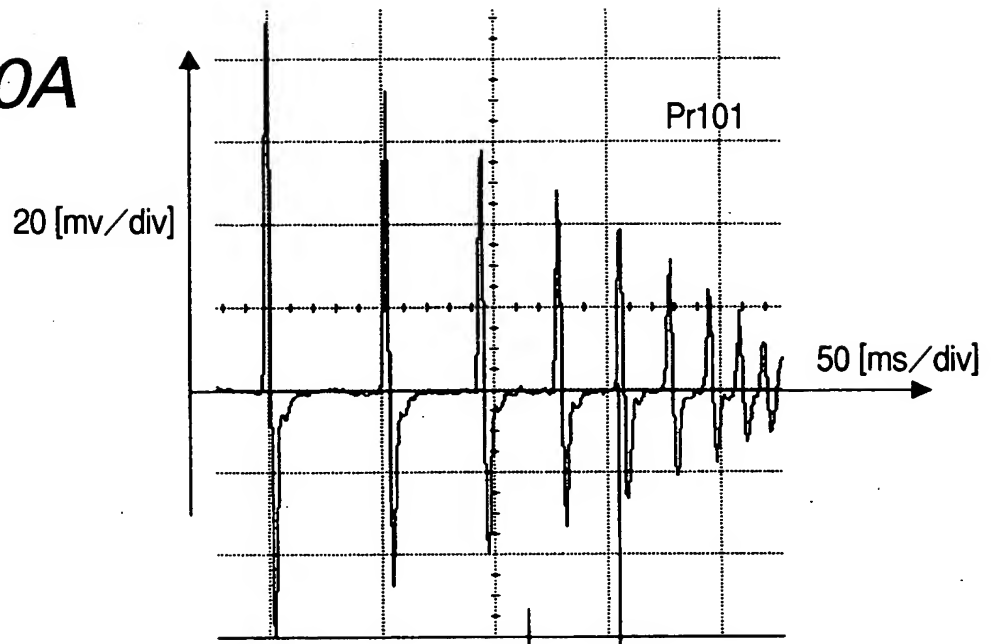
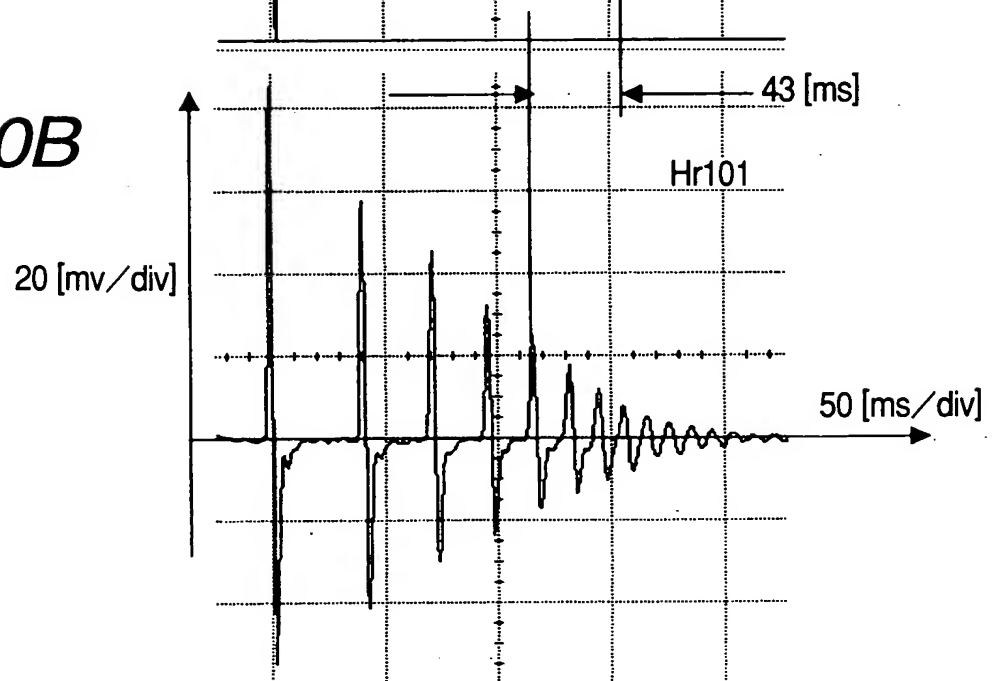


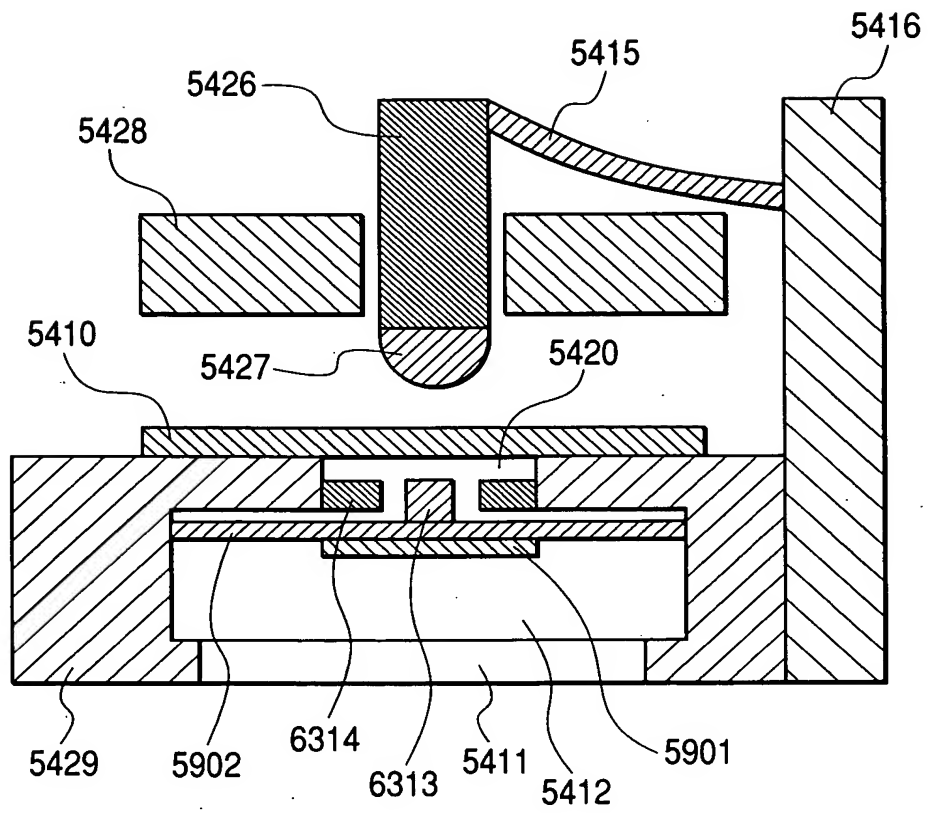
**FIG. 47A****FIG. 47B**

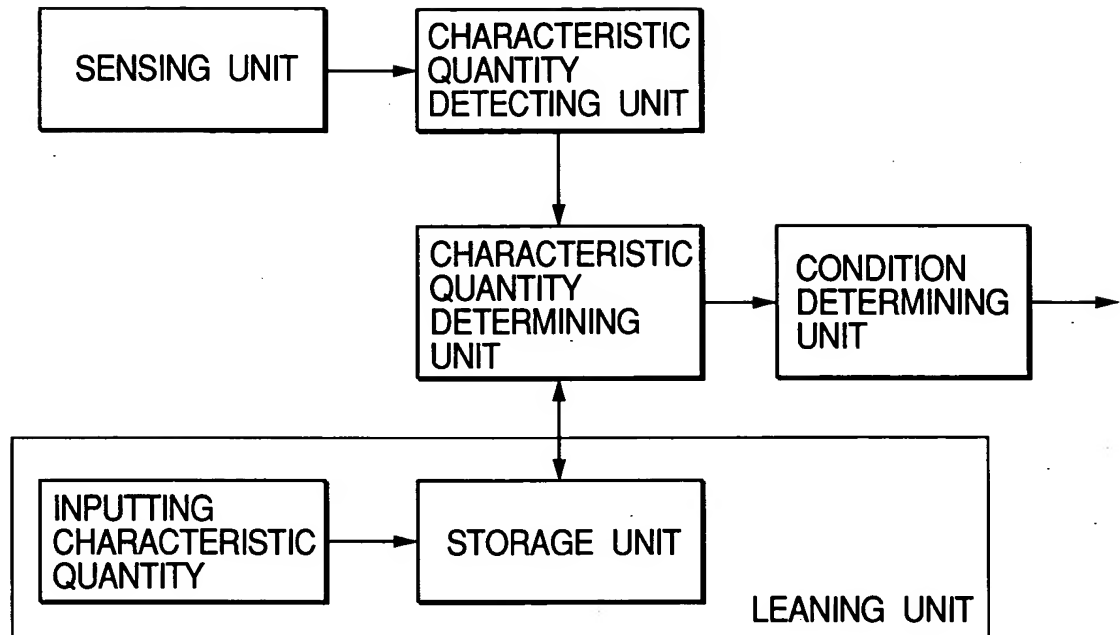
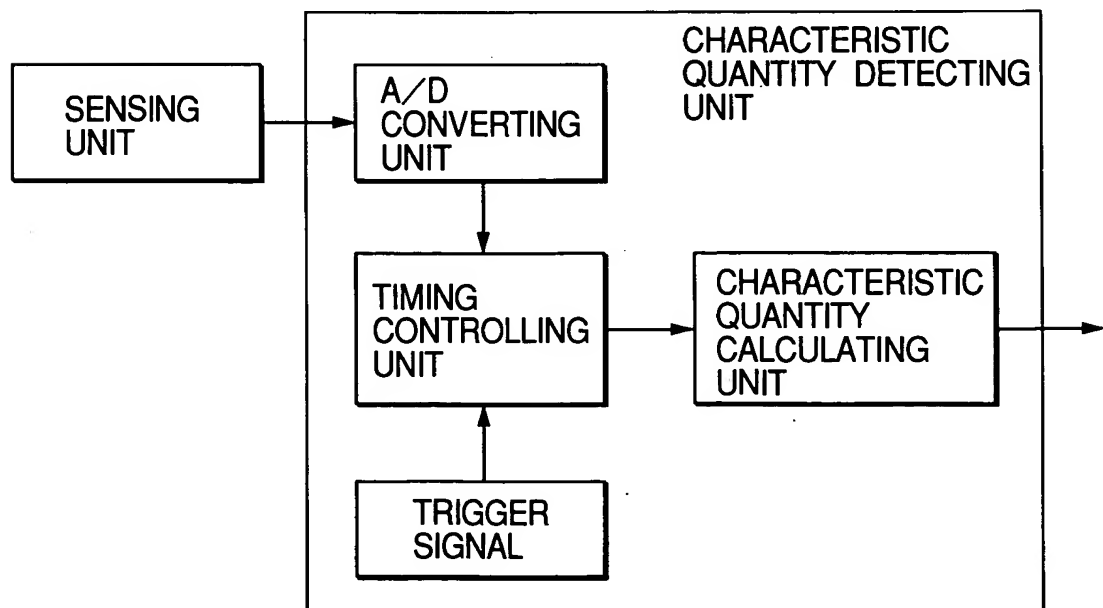
**FIG. 48**

**FIG. 49**

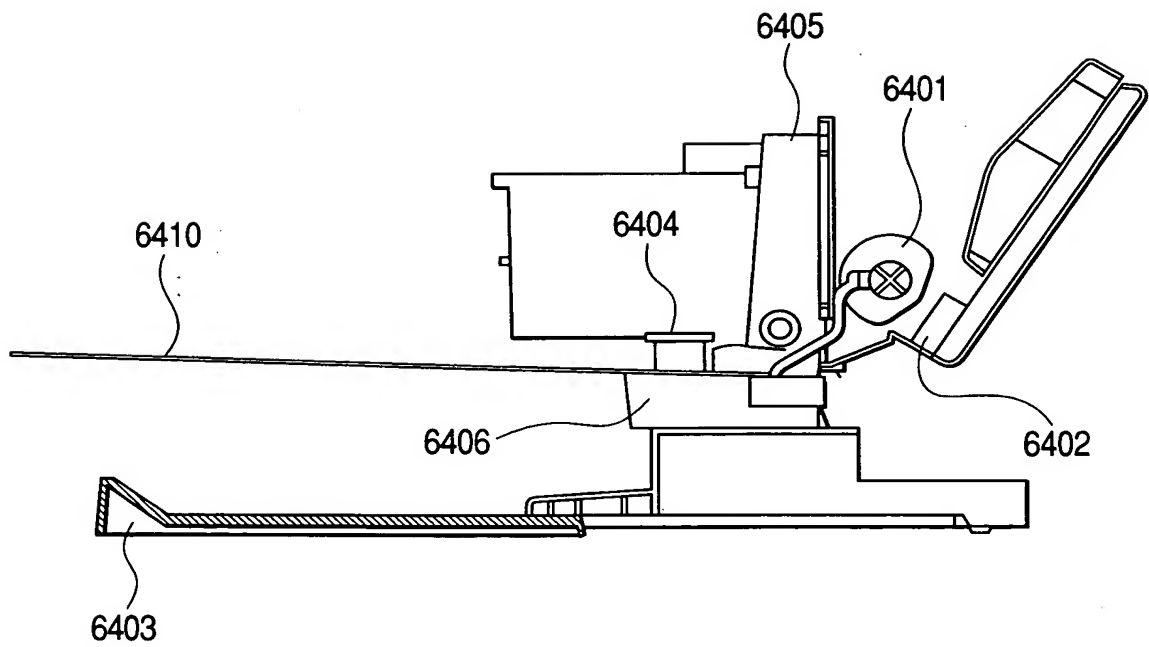


**FIG. 50A****FIG. 50B**

**FIG. 51**

*FIG. 52**FIG. 53*

**FIG. 54**



*FIG. 55*

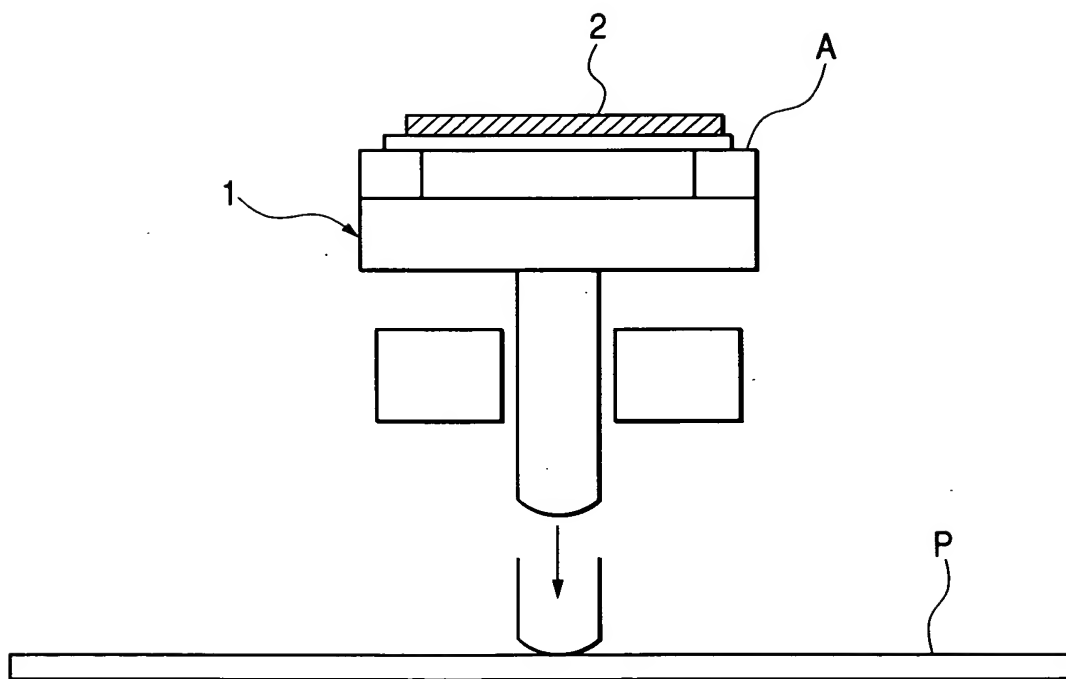


FIG. 56A

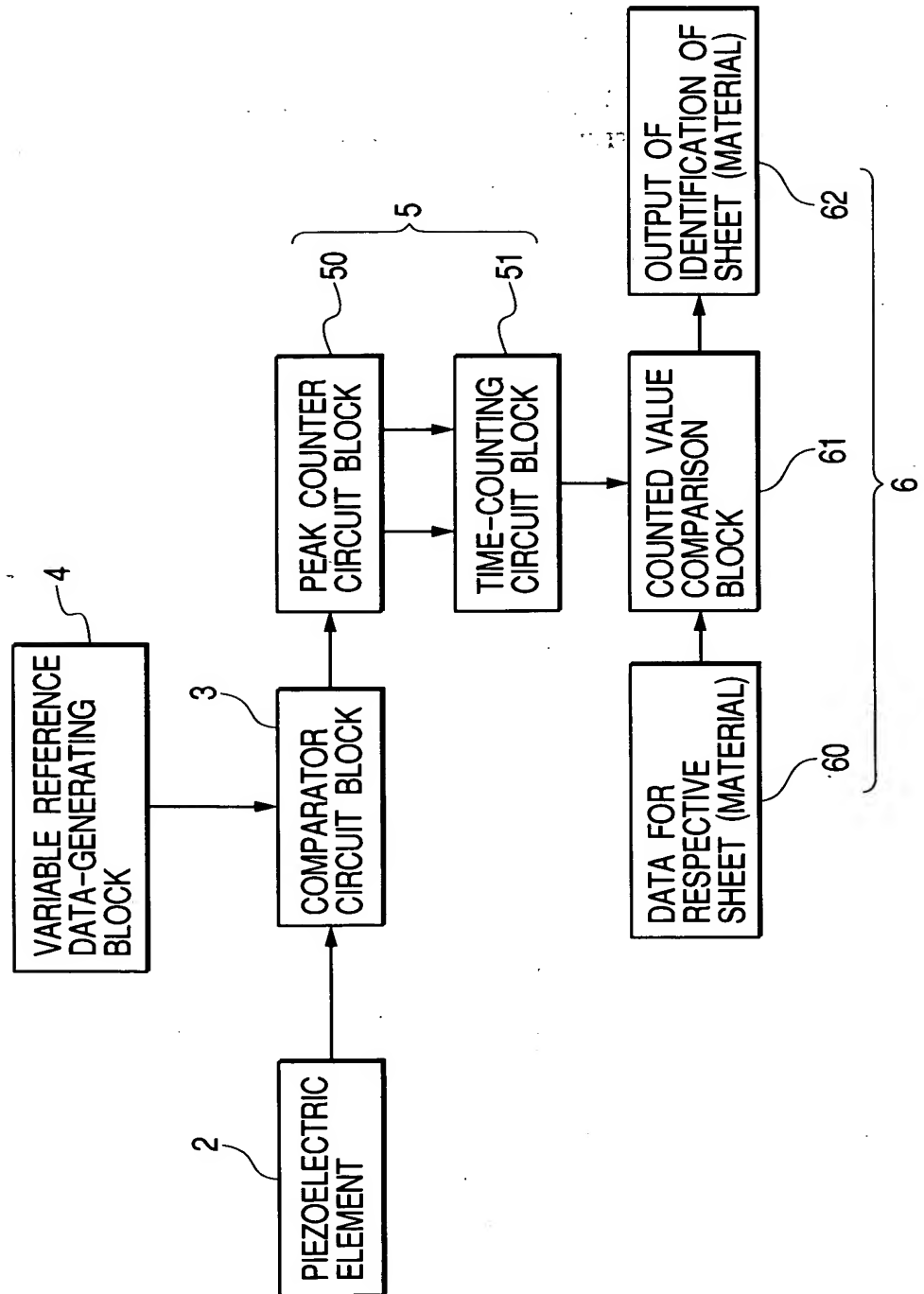
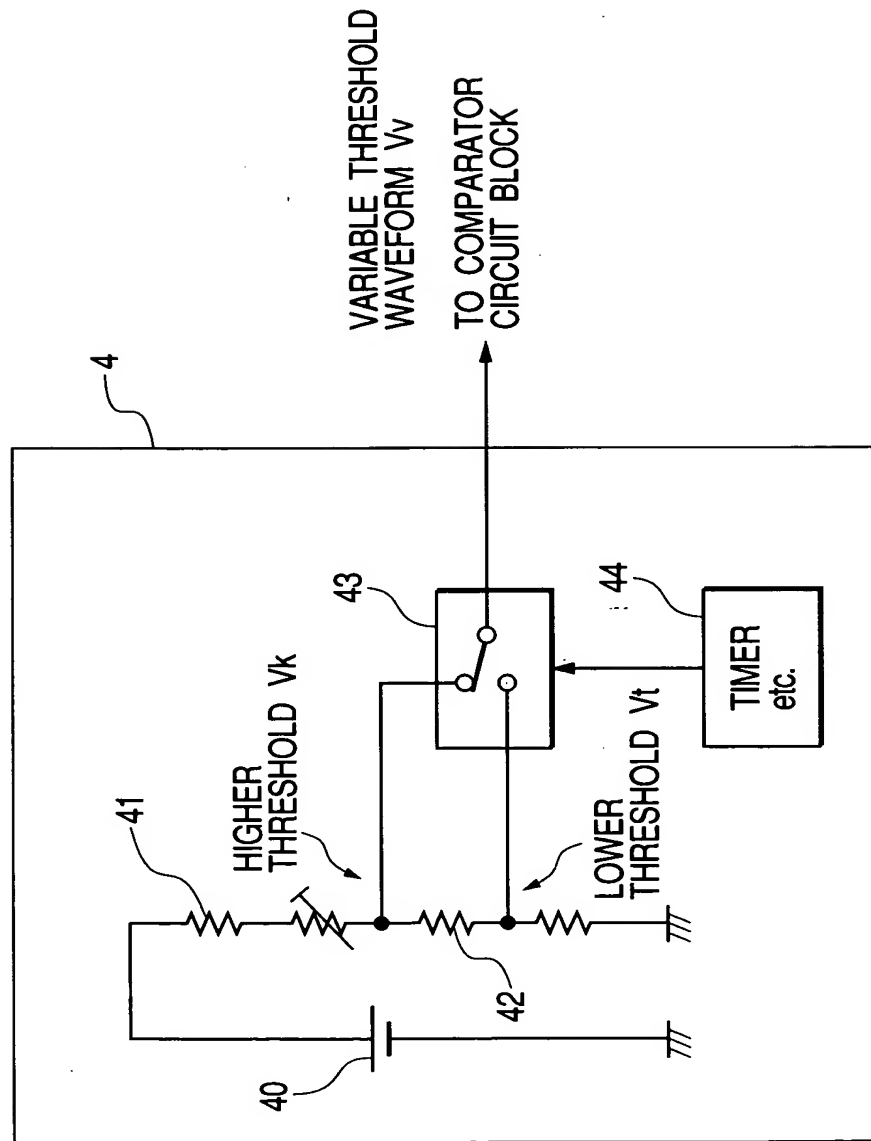


FIG. 56B



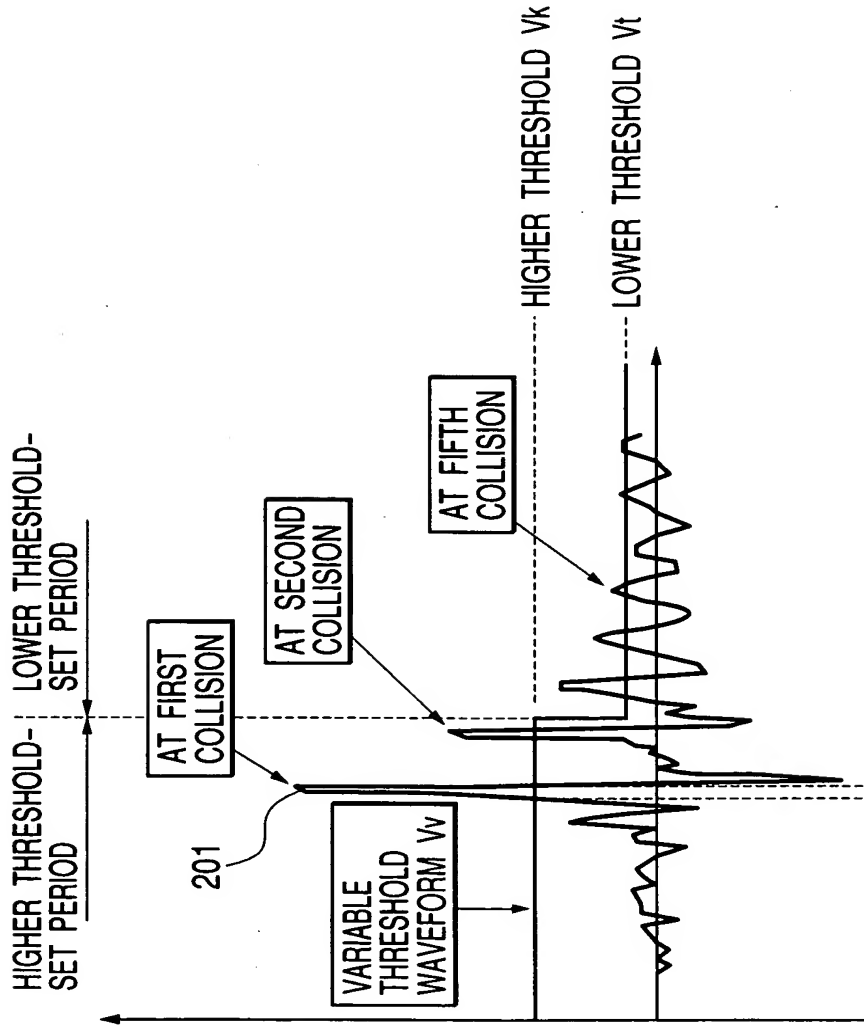


FIG. 57A

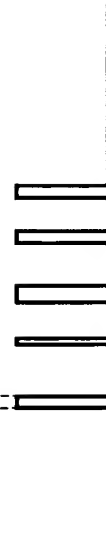


FIG. 57B

0	1	2	3	4	5→
---	---	---	---	---	----

FIG. 57C



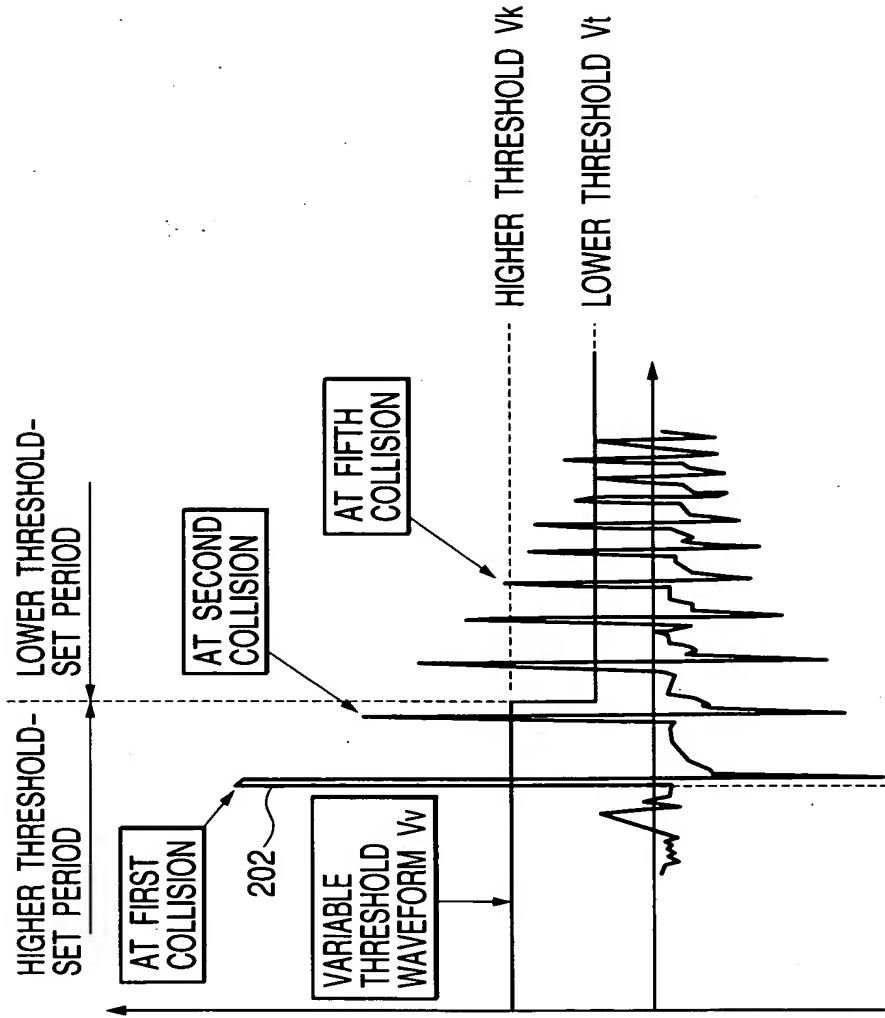


FIG. 58A

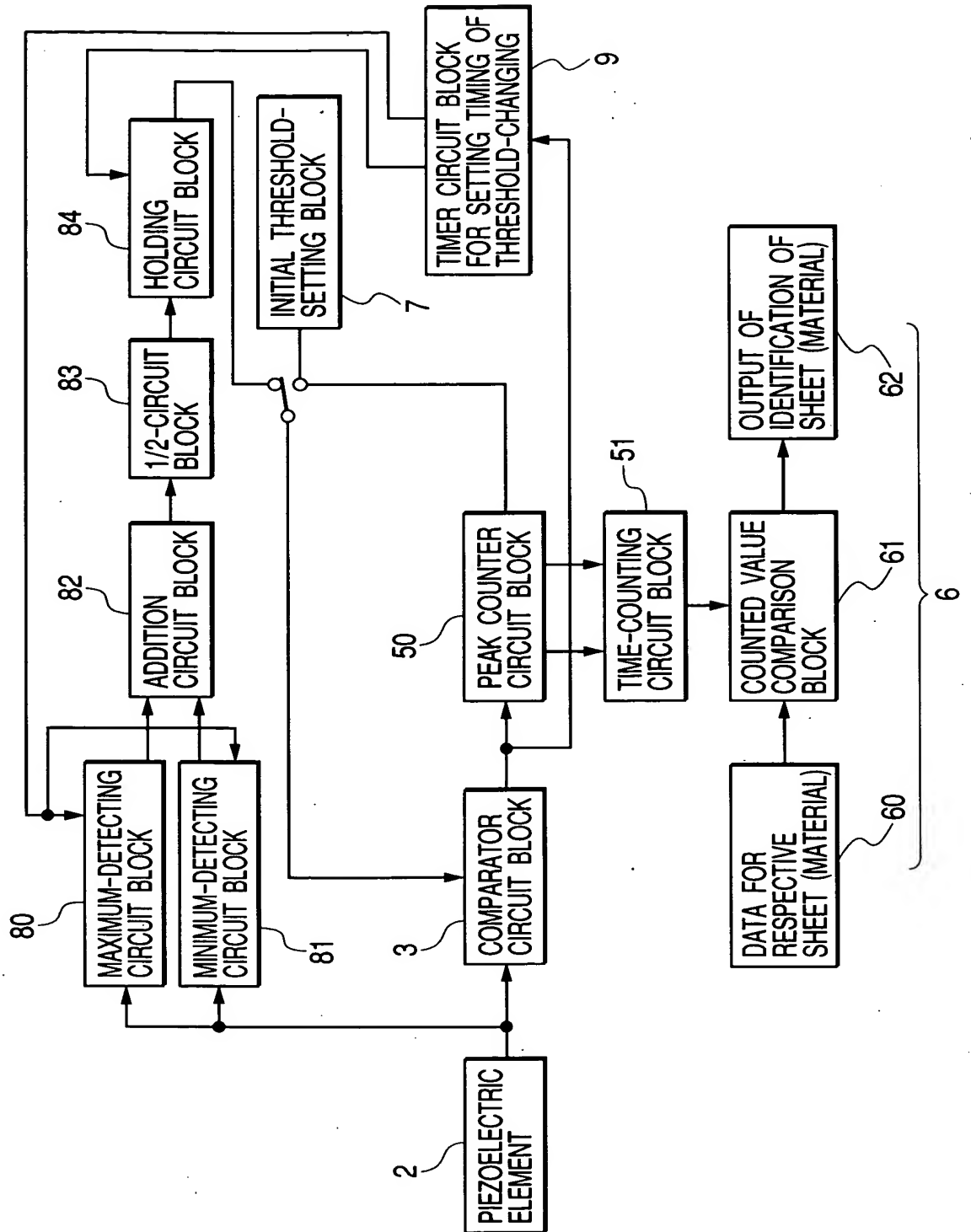


FIG. 58B

0	1	2	3	4	5	..
---	---	---	---	---	---	----

FIG. 58C

FIG. 59



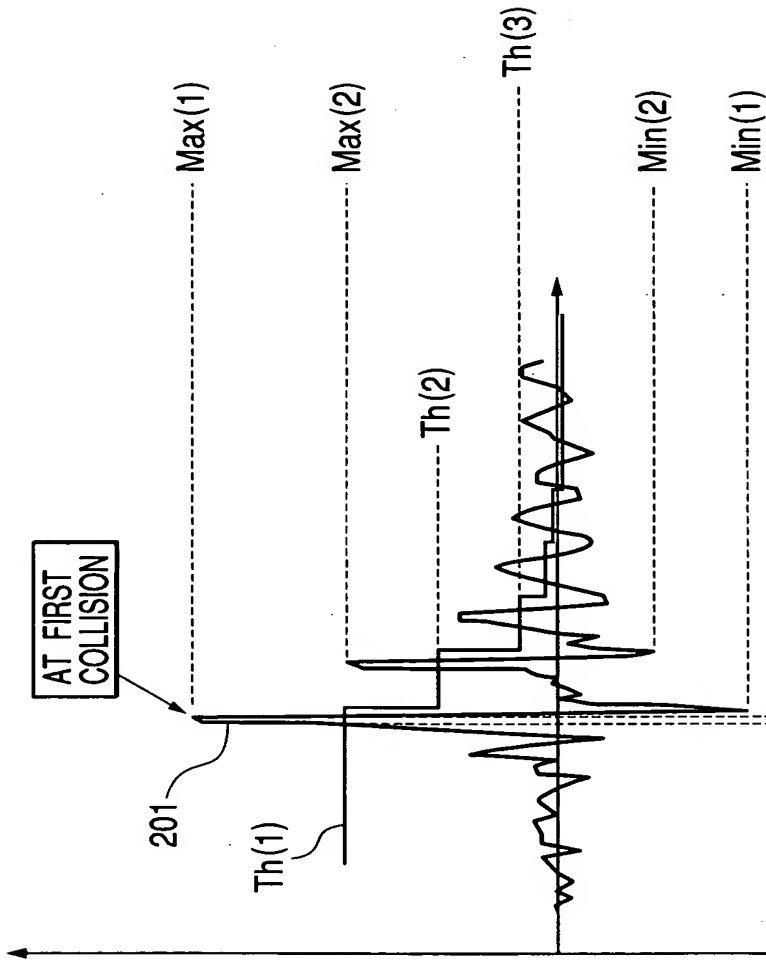


FIG. 60A

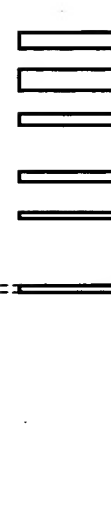


FIG. 60B

0	1	2	3	4	5	..
---	---	---	---	---	---	----

FIG. 60C

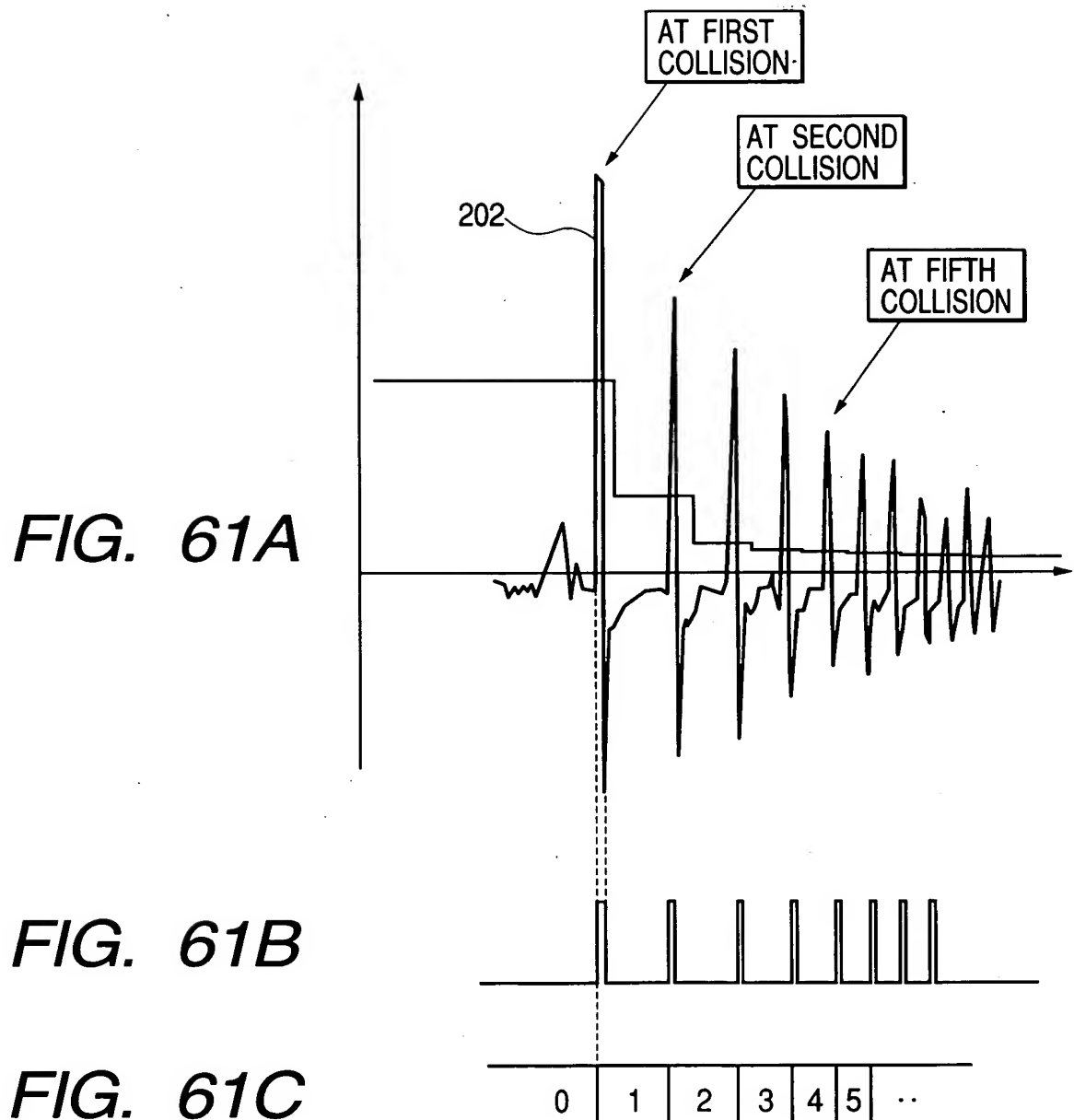


FIG. 62A

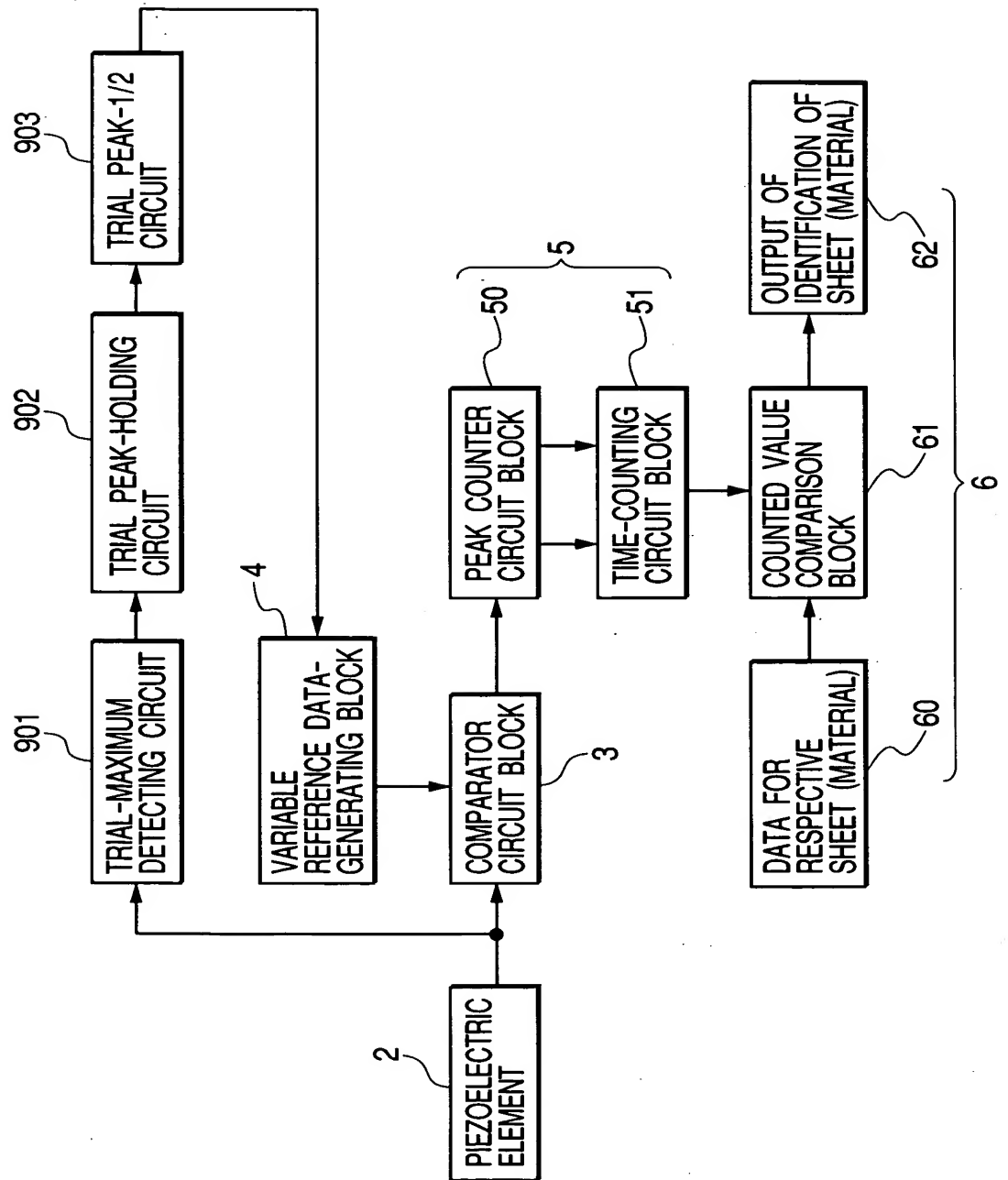
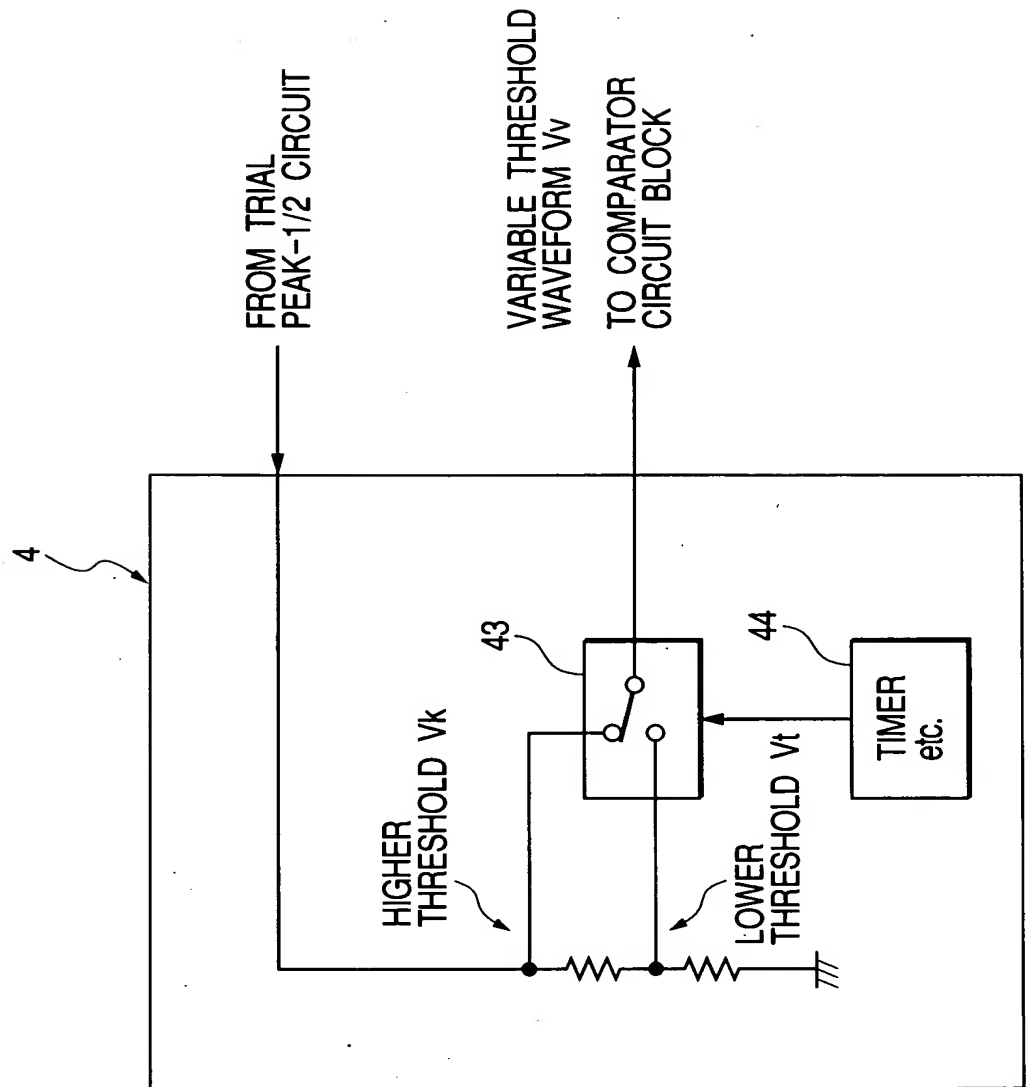


FIG. 62B



***FIG. 63***

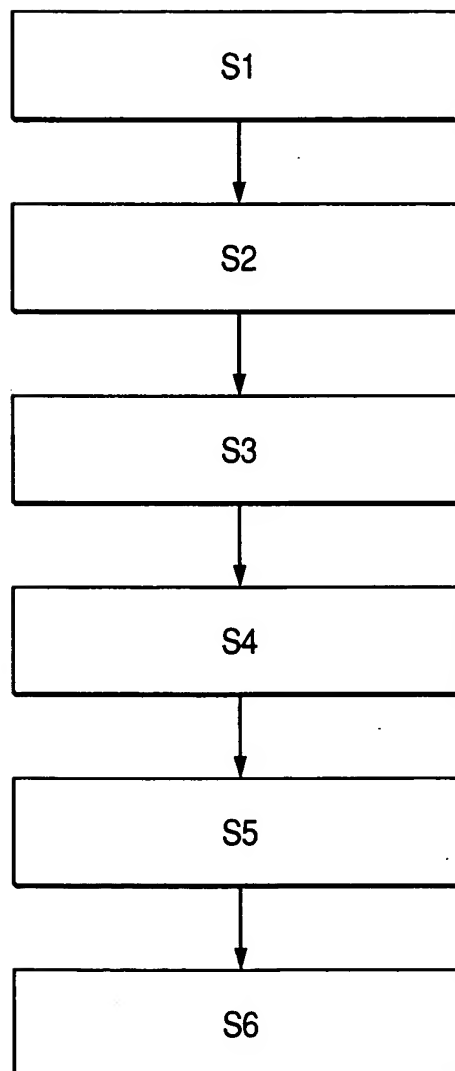


FIG. 64

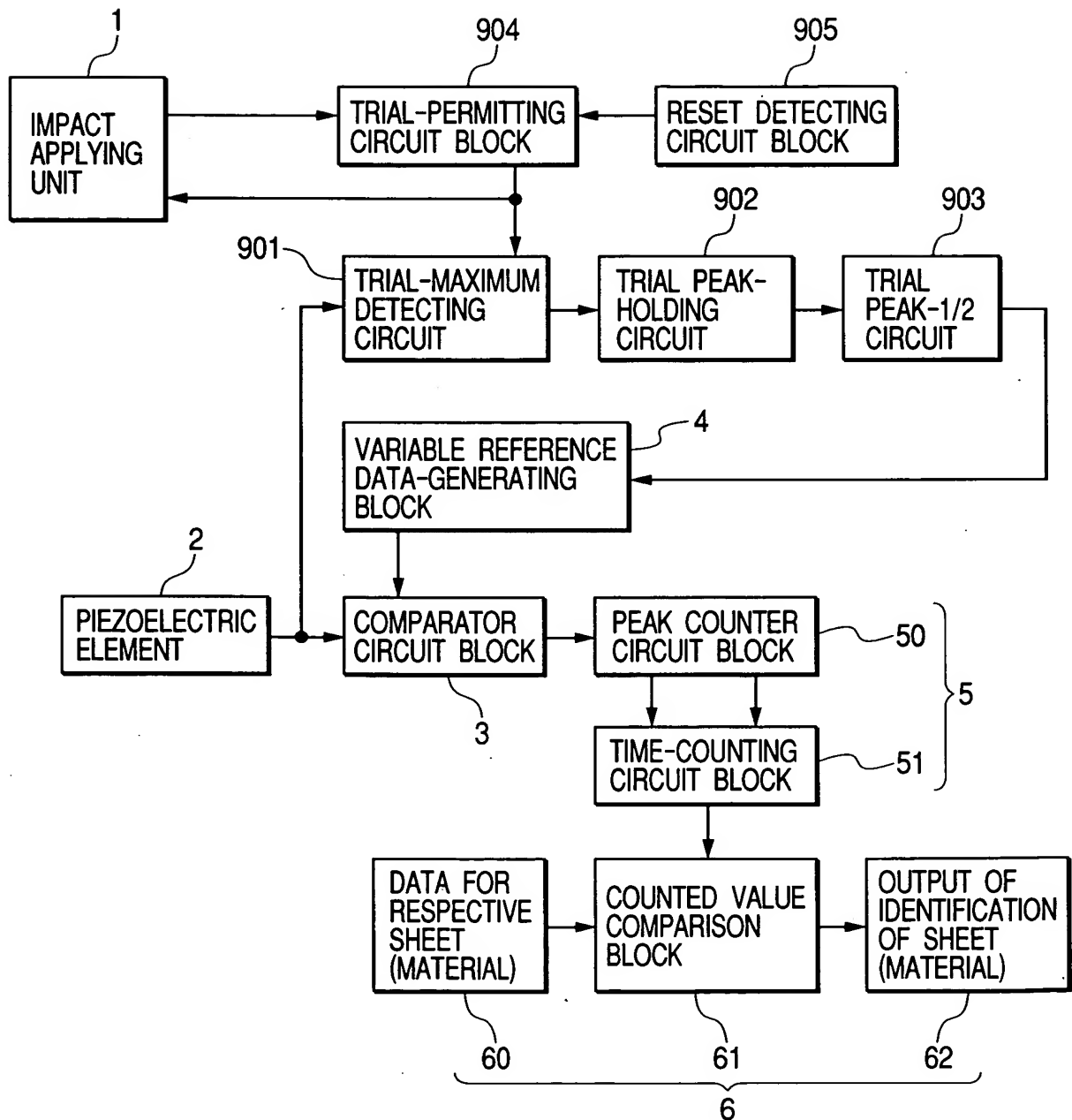
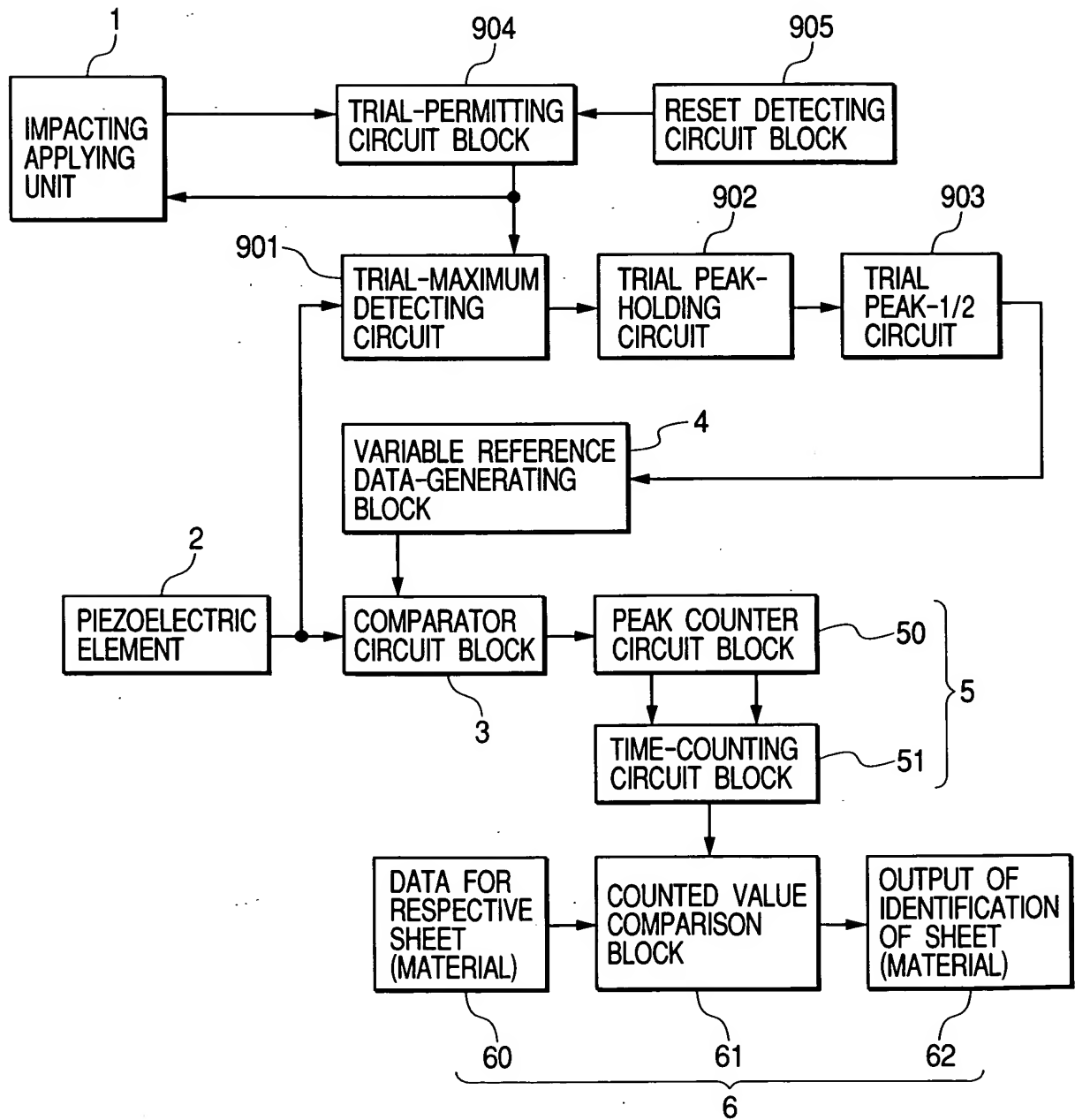




FIG. 65



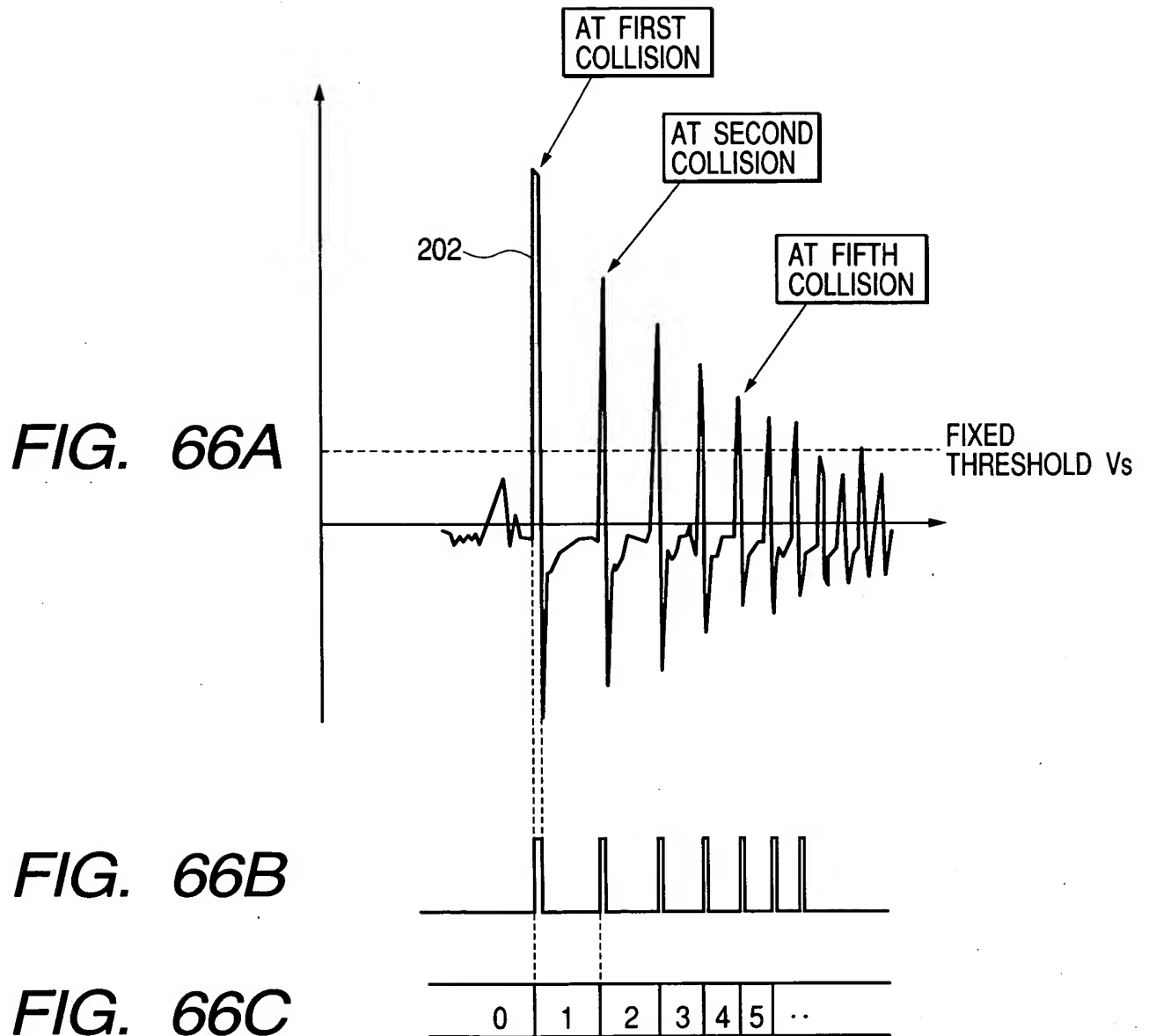


FIG. 67A

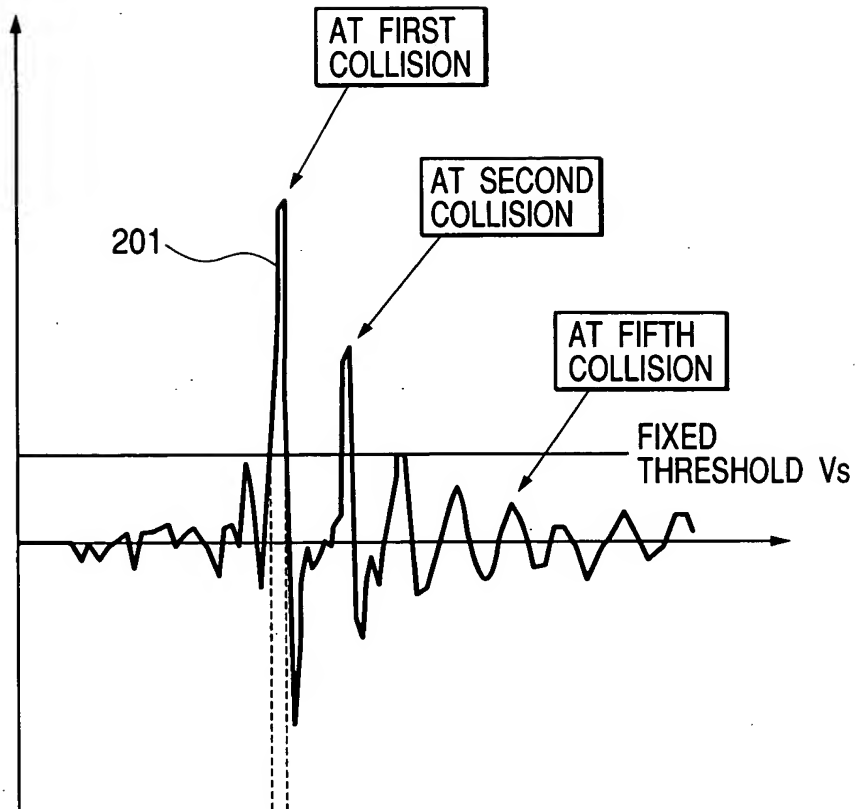


FIG. 67B



FIG. 67C

